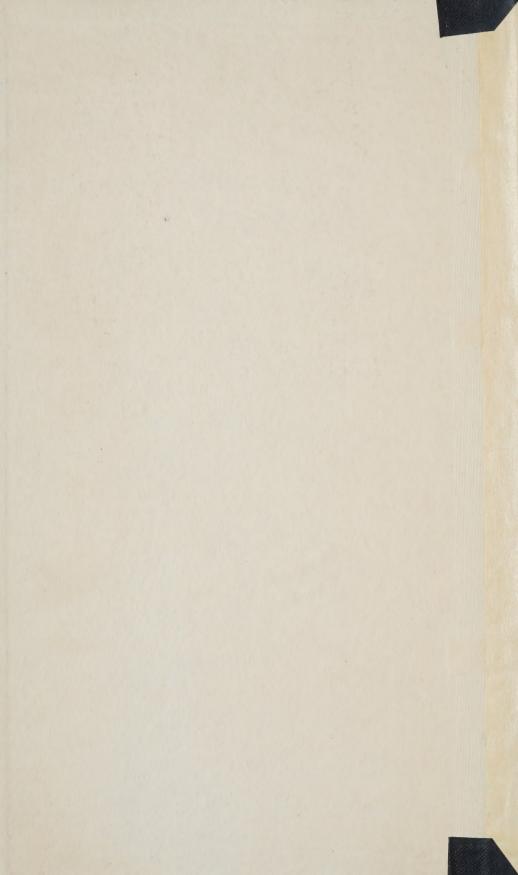
REPORT OF THE MINISTRY

OVERSEAS MILITARY FORCES OF CANADA 1918



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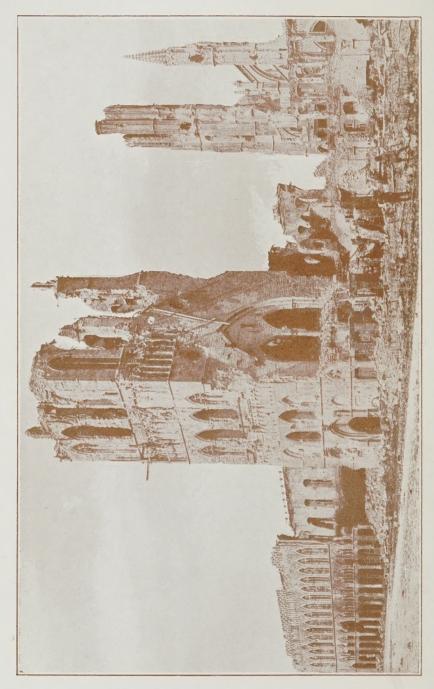
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All that remains of the famous Cloth Hall of Ypres, in the ruined City which will for ever be associated with Canadian valour.

Can Canada. Overseas Military Forces.

REPORT of the MINISTRY

Overseas Military Forces
of Canada
1918



LONDON:

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13.4.19



CORRECTIONS, ADDITIONS AND DELETIONS.

CORRECTIONS:

Page 28, line 11-after "taking," read "on" for "of."

Page 32, line 11-after "necessity of," read "retaining" for "retraining."

Page 60, line 38-for "Western," read "Eastern."

Page 88. line 5-for "carrying," read "varying."

Page 153, line 23-for "exploitation," read "extension."

Page 153, line 23-for "success," read "attack."

Page 180, last line-for "that town," read "Baisieux."

Page 473, line 20-for "Torry," read "Tory."

Page 473, line 23-for "Torry," read "Tory,"

ADDITIONS:

Page 59, last six lines-after "1st Reserve Battalion" insert "(British Columbia Regiment)."

after "11th Reserve Battalion" insert "(Manitoba Regiment)."

after "18th Reserve Battalion" insert "(Manitoba Regiment)."

Page 138, line 15-after "morning" add "by the 4th Canadian Division."

Page 159, line 29-after "Bourlon Wood" add "the 11th Brigade (Brigadier-General Odlum) of"

Page 173, line 12-after "troops" add "remained under the leading Divisions throughout subsequent operations and."

Page 174, line 17-after "liberated" add "on this front."

Page 179, line 38-after "Division" add "The village of Onnaing and the western part of Rombies fell into our hands after severe fighting."

DELETIONS:

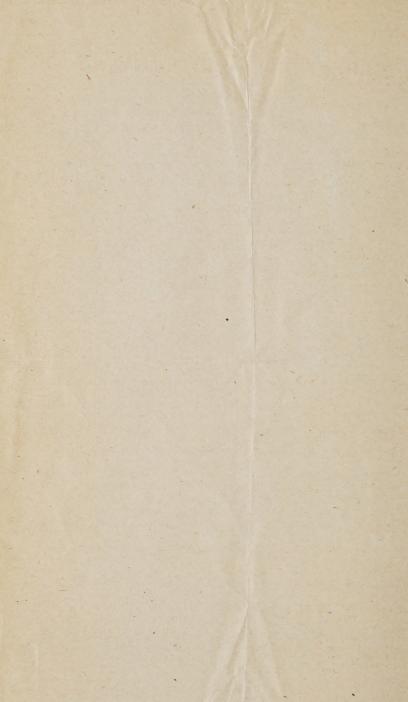
Page 42, line 16-after "Category B" delete "or."

Page 138, line 38-delete "Le Quesnel."

Page 180, delete last four words of line 2 and all of lines 3 and 4.

Page 180, line 40-delete "cleared the remainder of Baisieux."

Page 473, line 23-after "Tory" delete "who."



Minister, Overseas Military Forces of Canada:
The Honourable Sir Edward Kemp, K.C.M.G., M.P.

Deputy Minister:
COLONEL G. F. HARRINGTON.

Assistant Deputy Minister:
Lieut.-Colonel T. Gibson, D.S.O.

Chief of the General Staff:
Lieut.-General Sir R. E. W. Turner,
V.C., K.C.B., K.C.M.G., D.S.O.

Adjutant-General:
Major-General P. E. Thacker, C.B., C.M.G.

Quartermaster-General;
Brigadier-General D. M. Hogarth, C.M.G., D.S.O.

Accountant-General;
COLONEL W. R. WARD, C.B.E.

Director-General of Medical Services: Major-General G. L. Foster, C.B.

Paymaster-General;
Brigadier-General J. G. Ross, C.M.G.

LIST OF ILLUSTRATIONS.

				FACING PAGE
THE GLORY THAT WAS YPRES. (Frontispiece.)				1.402
Canadian Troops in Training				12
Canadian Cadets in Training			. :	15
THE KING AND THE YOUNG CANADIANS				24
The Taking of Vimy Ridge				51
"An Army Marches on its Stomach"				71
Canadian Diet was the Best in any Army				74
An Abomination of Desolation				101
CANADIAN TROOPS WERE KEPT FIT AND IN GOOD SPI	RITS E	BY SPO	RT	125
Aeroplane Photograph. Panoramic View of Win Queant Line)			T-	144
NEAR VIEW OF WIRE, DEFENCES DROCOURT-QUEANT				144
Going into Battle.—Arras				147
An Abiding Record of the Enemy's Wanton Des	TRUCT	ION		166
THE HAND OF THE HUN IN CAMBRAI				169
One of the Last Stages on the Road to Victory				178
A Great Welcome to the Canadians at Mons .				185
WITH THE CANADIANS ON THE RHINE				192
"Waste Not, Want Not" on the Battlefield .				324
Enter the Cavalry				336
Canadian Air-Fighters in France				346
CANADIAN LIGHT RAILWAYS HAD MANY USES				355
THE TRIUMPH OF THE CANADIAN LIGHT RAILWAY SY	STEM			360
Canadian Lumbermen in France				368
WITH THE CANADIAN ARMY MEDICAL CORPS IN FRAM	ICE			392
Entraining Wounded Canadians for "Blighty"	,			402
Dental Parlour in the Field				408
Canadian Chaplain on Duty in the Field .				410
FIELD PAYMASTERS' OPEN AIR OFFICE				424
Educating Canadian Troops for Re-entry into	Civil :	Life		473
Canada Sends her Aid to the Allies				485
THE Y.M.C.A. FOLLOWED THE TROOPS TO THE LINE				497

LIST OF SKETCHES, MAPS, ETC.

	FACING PAGE
SKETCH No. 1.—Showing Sectors held by the Canadian Corps.	FAGE
Jan. 1—March 24, 1918	102
Sketch No. 2.—Showing Northern Coal Fields and Communi-	
cations	106
Sketch No. 3.—Showing Defence Scheme, Vimy-Arras Sector	108
SKETCH No. 4.—Showing Area of Operations, 1st C.M.M.G. Bde. March, 1918	110
Sketch No. 5.—Showing Situation of Canadian Troops at Noon, 30/3/18	114
Sketch No. 6.—Showing Situation of Canadian Troops. 8/4/18	116
Sketch No. 7.—Situation on Western Front. 20/3/18—15/7/18	126
Sketch No. 8.—Move of Canadian Corps to Amiens Front	132
Sketch No. 9.—Showing Ground Captured by Canadian Corps. Aug. 8—Aug. 17, 1918	142
Sketch No. 9a.—Showing general situation following the Advance toward Roye	142
SKETCH No. 10.—Showing Attacks of Canadian Corps, and Hindenburg Defence System	154
SKETCH No. 11.—Advances made by Canadian Corps. Aug. 26—Oct. 11, 1918	170
Sketch No. 12.—Advances made by Canadian Corps. Oct. 11— Nov. 11, 1918	186
Sketch No. 13.—The Advance to the Rhine	192



CONTENTS.

								PAGE
Preface								ix
Introduction								iz
CONTROL OF CANA	adian Forci	es (Can.	ADIAN	SECTIO	n, G.H	.Q.)		1
THE GENERAL ST	CAFF. (See S	separate	Index	, page	7)		010	9
THE ADJUTANT-C								27
THE QUARTERMA	ASTER-GENE	ral's E	BRANCH	i. (See	e separ	ate In	dex,	- 1
page 69)								71
OPERATIONS OF T	THE CANADIA	IN CORP	s, 1918	3		• •	• •	99
Part I.								404
	y 1 to Marc							101
	21 to May 7					٠٠.		108
May 7	ro July 15							120
Part II.								
July 15	5 to Novemi	BER 11						126
PART III.								
	BER 11 TO D					.' -		185
THE ORGANISAT	MON, ADMIN	NISTRAT	ION A	ND F	JNCTION		THE	195
CANADIAN C	CORPS. (See	separat	e Inde	x, page	3 193)			333
Proposed Re-O						• •	. ,	335
OPERATIONS OF							• •	345
Canadians in the								349
Canadian Air F						• •		355
CANADIAN RAIL								363
Canadian Fore							• •	373
Canadian Troo							• •	
CANADIAN TANK							• •	377
CANADIAN ARMY	MEDICAL C	CORPS.	(See s	eparate	e Index	, page :	379)	381
CANADIAN ARMY	Y DENTAL CO	ORPS						405
CHAPLAIN SERVE								409
ACCOUNTANT-G	eneral's Br	RANCH						413
CANADIAN ARM	Y PAY CORPS	5						417
THE GENERAL A	Auditor's D	EPARTM	ENT					429
CANADIAN RECO	ORD OFFICE							433
ESTATES BRANC	ЭН							437
OVERSEAS PURC	CHASING COM	IMITTEE						441

viii

CONTENTS—continued.

							PAGE
THE CANADIAN MILITARY FUNDS	s Trus	ST					447
NAVY AND ARMY CANTEENS .							449
Canadian War Records .							453
Overseas Disposal Board .							461
INTERNED PRISONERS OF WAR (Holla	ND)					465
Inter-Allied Permanent Com	MITTER	e for I	DISABL:	ed Sol	DIERS		469
KHAKI UNIVERSITY OF CANADA							473
DISTRIBUTION OF INFORMATION	RELAT	ING TO	CIVIL	RE-ES	STABLIS	H-	
MENT							483
THE CANADIAN RED CROSS SOCI	ETY						485

497

507

515

Non-Military Organisations

Demobilisation. (See separate Index, page 515) ...

PREFACE.

During the years in which the Empire was at War, Canada's share steadily increased until the little Force which crossed the Atlantic in 1914 had developed into a mighty organization whose activities extended into every sphere of military effort.

I have, therefore, thought it proper to submit a report of these activities to Parliament, and through it to the people of Canada, in the hope that it may prove of interest to them.

The report which follows does not presume to be an exhaustive account of all such activities. These are so numerous and so varied in their nature that it would be an almost impossible task to prepare a complete record of them at this stage. An endeavour, however, has been made to make a general survey of many matters which came under the surveillance of this Ministry, chiefly during the year 1918. In view of the purpose of the report, details and language of a technical nature have been avoided as much as possible.

I welcome this opportunity of expressing to the Forces who have served in all theatres and in all capacities my heartfelt appreciation of their magnificent achievements. Wherever a stern or difficult task had to be performed, wherever the fight was fiercest, Canadian troops were in the forefront, by their valour, patience and skill, upholding and increasing a renown which will endure for all time.

Further, I would express my thanks to those in charge of the administration and training of our Forces,

both in France and in England. By their efficiency and wholehearted endeavour our victories were made possible, and they conclusively proved to the world that the citizen soldier, imbued with the spirit of loyalty and self-denial, could be the equal of those who had made war a life-long study.

Finally, on behalf of the Overseas Forces, I wish to convey to Parliament and to the people of Canada, the grateful thanks of the Forces for all that has been done on their behalf, and for the constant solicitude which has ever been displayed in their welfare. The many sacrifices cheerfully undertaken so that our soldiers might not lack the wherewithal to enable them to carry the war to a successful conclusion did not pass unnoticed, but, on the contrary, were ever an inspiration urging them to still greater deeds.

A. E. KEMP.

INTRODUCTION.

The activities of the Overseas Forces of Canada have been so manifold and have spread themselves over so wide a field of effort that it is no easy matter to publish a report which may be confidently stated to cover every aspect and phase of them.

To obviate as much as possible the possibility of omission, this report has been constructed and arranged in sections, a section being allotted to the work performed by each administrative Branch or Department. So also, sections are allotted to the activities of the combatant and non-combatant troops, special sections being devoted to those matters which it is thought will be of particular interest to the Canadian people.

Before proceeding to deal with these in detail, it seems proper in this Introduction to explain generally the system under which our Overseas Forces are administered, and to make a brief review of some of the outstanding features of the year 1918.

The Overseas Forces are administered by the Minister, Overseas Military Forces of Canada, the offices of the Ministry being situated in London.

To assist him in his duties the Minister has his military staff, consisting of the heads of the various Branches and Departments of the Overseas Military Forces of Canada, who, for the greater part, are accommodated in London. This staff, along with the Ministry, practically constitutes an Overseas Canadian War Office; for it should be borne in mind that with the exception of active operations in the Field, which, of necessity, come under the direction of British General Headquarters, Canada's Forces are an entirely autonomous body, all questions affecting their administration, organisation, promotions, pay, etc., having to receive the sanction of the Minister before any action can be taken.

The year 1918 was one of great activity in the history of the Canadian Forces, and will for ever stand out as one which witnessed the culmination of Canada's claim to military greatness. The year 1917 had seen the Canadian Corps achieve the seemingly impossible in the capture of Vimy Ridge, Hill 70, and the Passchendaele Ridge. The year 1918 saw

them initiate the final counter Offensive in front of Amiens, and lead the way to ultimate victory through the "impregnable" Hindenburg line. The history of the Offensives will be found in the chapters relating to the Corps and Cavalry Brigade, and it is not necessary to enlarge upon this engrossing subject here.

Benefiting from the experience of former years, the Overseas Administration instituted in the year 1918 a considerable number of changes in organisation, tending towards a greater efficiency in the conduct of Canadian affairs Overseas generally, in the methods of training and maintaining the troops, and towards a reduction of the personnel necessary for that purpose. Important among these were the reduction in the number of Reserve Battalions, Regimental Depôts, and Reserve Training Brigades in England, and the release of the Staffs of the Units so dispensed with for other purposes. For example, out of the 57 Infantry Reserve Battalions which existed on January 1, 1917, only 15 remained on June 1, 1918. The saving in Staffs effected by these reductions is self evident.

So also the number of Officers and Other Ranks employed at Headquarters was, in the last two years, cut almost in half, notwithstanding the continuous increase in Canada's Overseas Forces: and in the same spirit Canadian military establishments have been steadily reviewed and amended, no less than 111 establishments having been reviewed and 128 amendments dealt with.

One of the most noteworthy innovations of the past year was the creation of the Overseas Military Council. This was, on the submission of the Minister, authorised by an Order in Council, dated April 11, 1918. The purpose of this Council is through its meetings and deliberations to bring into closer co-operation the different departments of the Administration and to advise the Minister upon any subjects on which he may ask its advice. It is constituted as follows: Chairman, the Minister; Vice-Chairman, the Deputy Minister; Members, Chief of the General Staff, Adjutant-General, Quarter-master-General and the Accountant-General, with the Director-General of Medical Services and the Paymaster-General as Associate Members.

Another important change was the establishment of a Canadian Section at British General Headquarters, France. This Section is a branch of the Ministry situated at the Headquarters of the General Officer Commanding the British Forces

in the Field, and its purpose is to represent the Minister there. It consists of a General Officer in Charge, who has under him such staff as is necessary to enable him to carry out his duties. In addition to being the representative of the Minister at General Headquarters and the channel of communication between him and those Headquarters, the Section is also the channel of communication between the heads of Canadian Formations in the Field and the Minister in certain matters. It is responsible under the Minister for such supervision, as it may be charged with, over the various Canadian Administrative Services and Departments in the Field, and is empowered to check such executive administration as may be determined on from time to time by the Minister, with regard to the control of the personnel of the Canadian Forces in the Field in accordance with arrangements made between the Ministry, the War Office, and General Headquarters. As a result of the establishment of this Section, matters which were previously referred to General Headquarters, and dealt with by them, are now, with a few exceptions, dealt with by the Canadian Section. The establishment of this Section has been the means of saving much time and correspondence. Another important result of the creation of this Section is that supervision can now be exercised over the various Canadian Organisations, not part of the Canadian Corps, which are widely distributed throughout France and Belgium.

A further change in organisation was the re-organisation of the system under which purchases were made in England on behalf of the Canadian Forces. The purchase of supplies was, during the year 1918, placed under the supervision of an Overseas Purchasing Committee, consisting of three officers. By providing that all proposed purchases must be approved by this Committee before final action could be taken, it ensured everything being done to effect the utmost economy in this direction. A full report on the work of this Committee will be found in a later part of this report.

A separate report on Canadians in the Royal Air Force and on the Canadian Air Force will also be found in the pages which follow. Owing to the various channels through which Canadians have entered the Royal Air Force it has been difficult to obtain absolutely accurate information with regard to their numbers. No doubt the numbers will come as a surprise to many, and it should be extremely gratifying to Canadians to learn of the important part played by Canada's sons in this brilliant

Service, and also to know that steps have been taken to perpetuate the spirit and traditions of Canadians in the Royal Air Force by the formation of a distinct Canadian Force. Some may wonder why such a Force has been limited to its present size, but on consideration it will be realised that if any attempt had been made to withdraw a large percentage of Canada's Airmen from the Royal Air Force, it would have had a disastrous effect on the efficiency and striking power of that Force at a time when the maximum was required.

The establishment of a Canadian Bureau of Aeronautical Information was also effected in 1918. This Bureau is collecting a vast amount of information which, although at present available to all the Allies, is not likely to be so after the declaration of Peace, and should prove of great value to Canada.

With regard to changes made in the organisation of the Training Camps, an interesting feature was the establishment of Segregation Camps. Previous to the establishment of these camps, troops arriving from Canada proceeded direct to their Regimental Depôts, and if any infectious disease broke out, great inconvenience was caused. By segregating all newly arrived troops in special camps for the necessary period of quarantine before allowing them to proceed to their Reserve Battalions, the cause of this inconvenience was removed. It was also found that the thorough preliminary training given the troops while at such camps was the means of saving much time when the men arrived at their Reserve Battalions.

The experiment of establishing an Officers' Casualty Company at Bexhill proved an unqualified success, as by its creation a long-felt want was supplied, convalescent officers being thus given an opportunity to become fit before returning to their Reserve Battalions.

The question of the disposal of Casualties as a whole received the close attention of the Overseas Administration during 1918. In view of the great demand for men, it was felt that every effort should be made to ensure that the best possible use was being made of the numbers available, and for this purpose a Board, known as the "Allocation Board," was established in April, 1918. Its duties consisted in examining all Low Category Men, and in allocating them to the branch of the Service in which they would be most useful, and generally in making sure that the right men were in the right place.

A further innovation of great interest was the inauguration of a policy which, by providing for a systematic exchange of Officers between England and France, ensured that the training methods in England would be kept up to date and, at the same time, that a change would be provided for those who had served a long term in France.

Our Prisoners of War interned in Holland were not forgotten, and the conditions under which they were living was the subject of special investigation during the past year. After considerable negotiation with the War Office, permission was obtained for a Canadian officer to proceed to Holland, and as a result of his investigation, it was found that, on the whole, their lives were as comfortable as could be expected under the circumstances. As a result of the investigation, however, some improvements were arranged for.

With the signing of the Armistice many new problems had to be faced, and consequently considerable re-organisation was required to be done. In addition to demobilising the troops, the question of the disposal of large quantities of material had to be considered, and this was met by the creation of a Disposal Board for the purpose of disposing to the best advantage of the stores in the hands of the Canadians in England and France, which it was not desired should be taken back to Canada. A full report on this subject will be found in a later section.

Attention is also drawn to the work of the Khaki University, which, since the cessation of hostilities, has assumed very large proportions. This organisation is a branch of the Overseas Military Forces of Canada and every effort has been made, by the provision of the necessary personnel for its staff and by general encouragement, to bring it up to the highest pitch of efficiency.

It will be observed that some space in this report has been given to certain organisations which are not, strictly speaking, branches of the Overseas Forces, but it was felt that as these organisations had been so closely associated with the Overseas Administration, a brief summary of their magnificent efforts should be included in this report, especially as these bodies are, in practically all cases, maintained by the efforts of the Canadian public.



Control of Canadian Forces.

CANADIAN SECTION, G.H.Q.

During the progress of the War many incidents indicated that the method of control exercised by the Ministry over the Canadian Forces was capable of improvement. The desirability of a clear definition of the powers and responsibilities of the Canadian Government on the one hand, and the Imperial Government on the other, became evident. In addition to the Canadian Corps there were about 40,000 other Canadian troops in France, the supervision of whose welfare had been conducted from England. The methods of communication between the Ministry in England, the Canadian Corps, General Headquarters of the British Armies in France, and troops on the Lines of Communication, had been cumbersome and unsatisfactory. Purely Canadian matters were sometimes dealt with by those not intimately interested therein, and it was felt that in matters affecting the organisation and administration of the Canadian Forces, Canadians should manage their own affairs.

Correspondence passed between the Ministry and the War Office relative to this subject, and a conference was held with representatives of the Army Council and later with the Field-Marshal Commanding-in-Chief, at his Headquarters in France.

The outcome of these negotiations was a complete agreement between the Imperial Government and the Canadian Authorities upon the matter.

Broadly, the statement made by Canada of her position, in which the Imperial Government concurred, was that for matters of military operations the Canadian Forces in the Field had been placed by the Canadian Government under the Commander-in-Chief, British Armies in France; in matters of organisation and administration, the Canadian Government still retained full responsibility in respect to its own Forces.

It was clear that matters of organisation and administration would frequently have a direct bearing upon military operations and discipline, and *vice versa*, and it was agreed that in such cases these matters should be made the subject of conference between the Canadian and Imperial Authorities.

(642)

To meet this situation in France in the most effective manner, a Canadian Section of General Headquarters of the British Armies in France was formed in July, 1918, after full discussion and agreement. In forming such a Section it was not intended to interfere in any way with the responsibility of General Headquarters and the Supreme Command, in relation to matters affecting military operations or discipline, but through this Section the full control of the Canadian Government over matters of organisation and administration within its Forces was rendered capable of fruition. Important matters, such as the allotment of reinforcements in emergencies, War Establishments, the appointment of General Officers, and those other matters which from their relation to military operations should properly receive the consideration of General Headquarters, would still be made the subject of conference between the Canadian Authorities and General Headquarters.

The following is a statement of the status, composition, and functions of this Canadian Section.

STATUS, COMPOSITION AND FUNCTIONS.

Status.—The Canadian Section at General Headquarters is a Branch of the Ministry, Overseas Military Forces of Canada, and is directly responsible to the Minister for the efficient performance of the functions and duties confided to it.

Composition.—The Canadian Section consists of an Officer in charge, who has under him a staff that performs such functions of the following Branches, Services, and Departments as may be determined by the Minister:

- (a) Adjutant-General.
- (b) Quartermaster-General.
- (c) Military Secretary.
- (d) Medical Service.
- (e) Chaplain Service.
- (f) Pay Corps.

Functions.—The Section is :—

- (a) A direct channel of communication between the Minister and General Headquarters, and vice versa.
- (b) A channel of communication between the heads of Canadian formations in the Field on the one side, and the Minister and General Headquarters on the other side, and

vice versa in each case, for such matters as may be designated from time to time by the Minister, within the general principles specified above and outlined in the attached chart.

- (c) Responsible under the Minister for such supervision as may be charged to it by him, over the various Canadian Administrative Services and Departments in the Field such as Medical, Dental, Pay, Ordnance, Veterinary, Postal.
- (d) Empowered to take such executive or administrative action as may be determined from time to time by the Minister regarding the control of personnel of the Canadian Forces in the Field, in accordance with policies and establishments which are agreed upon by the Minister, the War Office, and General Headquarters.
- (e) Responsible under the Minister, that when questions of policy, organisation, and administration, which from their relation to military operations should receive consideration by General Headquarters, together with all questions of establishment, are referred to it, they are submitted for consideration at General Headquarters; that such matters are accompanied by any necessary explanation regarding the local Canadian conditions, if any, which make it desirable to effect a departure from the existing British regulations and establishments; and to submit to the Minister all such questions accompanied by the full views expressed thereon by General Headquarters and the heads of Canadian Formations, Services, and Departments concerned.

The following functions of the various Branches are performed by the Canadian Section. These conform with the general principles controlling the formation of the Section, and while they are not exhaustive, they are the working basis of the Section.

- (a) Adjutant-General.—Establishments, enlistments, visitors, miscellaneous personal services outside the functions of the Military Secretary.
 - Note.—The Canadian Adjutant-General Section at the Base (3rd Echelon) is a subsidiary office of the Canadian Section at General Headquarters.
- (b) Quartermaster-General.—Supervision and administration of the various "Q" administrative services and departments, remounts, equipment supplied at Canadian expense; obligations outside the capitation agreement, war trophies, damage

claims which are not an Imperial obligation, postings, personal services, promotions, reinforcements of "Q" personnel, and generally to attend to matters of a "Q" nature which may result in a charge to Canadian funds.

- (c) Military Secretary.—Routine matters regarding appointments, promotions, transfers, secondings, reversions, takings into and absorptions into establishments of officers seconded to Units or otherwise supernumerary therein, grants of commissions, resignations, acting rank, lists for A. C. and R. List, confidential reports.
- (d) Médical Services.—General supervision and administration of Canadian Army Medical Corps, including postings, personal services, promotions and reinforcements.

Note.—Also Dental Services.

- (e) Chaplain Services.—General supervision and administration of Canadian Chaplain Services, including postings, personal services, promotions, reinforcements.
- (f) Pay Services.—General supervision and administration of Canadian Army Pay Corps, including postings, personal services, promotions, reinforcements.

The Minister, by special selection from time to time, fills the appointment of head of the Canadian Section, General Headquarters, France.

Development.—The formation of the Section as a means of facilitating the conduct of official business was more or less in the nature of an experiment, and Canada was the only Dominion that made this effort. Every co-operation and assistance was rendered by General Headquarters, by the Canadian Corps, and by Canadian Units on Lines of Communication, with results which have proved highly satisfactory to all concerned.

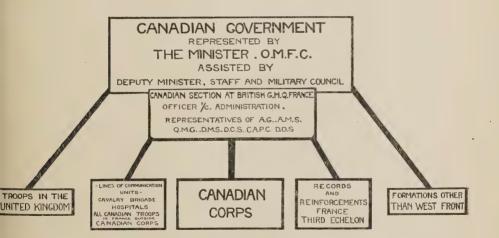
The Headquarters of the Section under the command of Brigadier-General J. F. L. Embury, C.M.G., are on the Rue de la Chaine at Montreuil, where are the General Headquarters Staffs of the British Forces in France.

On the signing of the Armistice, the Section was fixed with greater responsibilities consequent upon the movement of troops from the Lines of Communication to England, quickly

and in large numbers—a new and unexpected task which, with the limited staff and the novelty of the movement, made it a difficult one.

The conditions in France did not lend themselves to the easy movement of troops, but the Canadian Troops on the Lines of Communication were practically all transferred to England by the end of February, 1919. During the period of the evacuation of Units on the Lines of Communication, the Canadian Section has also been responsible for co-operation with the Canadian Corps on demobilisation of the Units of the Canadian Corps. All this necessitated increases in the Establishment and powers of the Section, which were duly authorised in December, 1918. Subsequently, Lieut.-General Sir Arthur W. Currie, G.C.M.G., K.C.B., was made responsible for the demobilisation of all troops in France, and, in addition to its other duties, the Section became his Staff for the purpose of demobilisation, in so far as general arrangements and the movement of troops were concerned.

The following chart indicates the functions of the Canadian Section in relation to the Ministry and the Canadian formations in the Field,





THE GENERAL STAFF.

INDEX.

SCOPE AND FUNCTIONS				
TRAINING OF REINFORCEMEN	NTS			
(a) Segregation Camps				
(b) Infantry Training				
(c) Cavalry Training				
(d) Artillery Training				
(e) Machine Gun Trainin	ng			
(f) Engineer Training			• •	
(g) Engineer Signals				
(h) Canadian Army Med	ical C	orps		
Canadian Camps and Train	NING A	AREAS		
raining of Officers				
RAINING OF INSTRUCTORS				
(a) Canadian Instructors	s' Poo	1		• •
(b) Canadian Trench Wa	arfare	Schoo	l	
(c) Canadian School of I	Muske	try		
(d) Canadian Gymnastic	Staff			• •
Canadians at Imperial Sci	HOOLS			
RETRAINING CASUALTIES		• •	. • •	
NTELLIGENCE				
ATHLETICS				
Canadian Parties Loa	NED	TO	Імре	RTAL
AUTHORITIES FOR SPECIAL				



The General Staff.

SCOPE AND FUNCTIONS.

Up to the date of the Armistice, the chief functions of the General Staff of the Overseas Military Forces of Canada in England were the organization and direction of all branches of the Service in the British Isles, and the training of the personnel for their duties in the field.

It is of interest to record that prior to the beginning of 1917 there was no purely Canadian organization for the training of Canadian Forces in England. The training of such Canadian troops as were then in England was directed by the staffs of the Imperial Command in which the troops happened to be stationed.

It was in December, 1916, that it was pointed out to the Imperial Authorities that it would be a far more satisfactory arrangement if the Canadian Authorities in England assumed the entire responsibility for the training of their own reinforcements. To this suggestion the Imperial Authorities agreed, and the present General Staff organization (now under the direction of Lt.-General Sir R. E. W. Turner, V.C.) was thereupon created. It has directed and supervised the whole of the work since that time, the personnel of the Canadian General Staff being entirely drawn from the Canadian Forces.

TRAINING OF REINFORCEMENTS.

Early in the history of the Overseas Military Forces of Canada it was realised that the conditions under which training was carried out in Canada made it difficult for full advantage to be taken of the time allotted for training there. Climatic conditions, harvest leave, and the proximity of the men to their homes, all militated against obtaining the essential standard of efficiency within the requisite period. Urgent representations were therefore made that troops should be despatched Overseas as soon as possible after enlistment, in order that their training might be carried out undisturbed in England.

This system was then adopted; and thereafter, to ensurethe best method of training recruits and securing for their units in the Field the reinforcements they required, the Canadian Military Forces in the British Isles were organised into Reserve Units corresponding to the arm of the Service they were designed to reinforce.

For the Infantry, the Reserve Units were constituted as Battalions; for the Cavalry, the Reserve Unit was a Regiment; while the other arms of the Service were reinforced from special Depôts.

In each case these reserve units first received the recruit from the Segregation Camp, then trained him, and eventually despatched him to the Unit in the Field for which he had specially qualified.

Reinforcement for the Infantry was carried out as far as possible on a Territorial basis, *i.e.*, a recruit enlisted in any particular part of Canada was trained in a Reserve Unit originating in that part of Canada, and subsequently served in the Field in a Unit with similar associations.

For the other arms of the Service recruits were mainly selected on account of their physical or mental suitability, or because their training and experience in civil life qualified them for some particular type of service.

An adequate supply of trained reinforcements for many special branches entailed the maintenance of numerous establishments in addition to those mentioned above, the provision of special schools and, in some cases, the utilisation of Imperial Schools. A brief summary of the whole system of training recruits in England is given in detail as follows:—

(a) Segregation Camps.—Although under the new system the recruit arrived in England with practically no military training, it was impossible to despatch him forthwith to his Reserve Unit. This was due to the fact that experience in the past showed that the placing of troops newly arrived from Canada in established camps, frequently introduced infectious diseases among troops ready for draft. This, with the resultant period of quarantine, had at times seriously affected the reinforcing power of the Reserve Units.

The recruit, therefore, had first to spend a period determined by the Medical Authorities (normally 28 days) in a Segregation Camp. This system practically eliminated infectious epidemics in the training camps, while it did not interfere with the progress of the recruit, as the whole of his preliminary training was carried out while he was in segregation. The period in the Segregation Camp was used to establish the man's health and to instil in him the essentials of smartness and military discipline, objects which were attained by concentration on physical training, close order drill and athletics. Thus, when the time came for a man to join his Reserve Unit, he was able at once to take his place in the ranks and proceed with the more technical details of his training.

The first Segregation Camp was opened at Frensham Pond, a spot about equi-distant from Witley and Bramshott, in the Spring of 1918. The great influx of troops from Canada in that year, however, necessitated the opening of a second camp at Bourley Wood. These camps, being tented, were not suited for winter occupation and in the autumn they were closed, after a large hutted Camp had been secured at Rhyl. This was in reality a more suitable spot, being in close proximity to Liverpool, where the great majority of Canadian troops were disembarked. The same reason marked the camp for use in the future when the cessation of hostilities would demand concentration camps near the principal port of embarkation for home.

(b) Infantry Training.—During his 14 weeks of training the Infantryman was required to become proficient in numerous subjects. Among them were: Musketry, Hand Grenades, Rifle Grenades, Bayonet Fighting, Anti-Gas Precautions, Entrenching—including Revetting, Draining and the construction of dug-outs—construction of barbed wire entanglements and Lewis Gunnery. Experience had shown that a large percentage of Infantrymen should be familiar in the use of the Lewis Gun, and latterly 50 per cent. of the reinforcements proceeding to France were required to qualify in the use of this weapon.

When the recruit had become efficient in each of the separate branches of training he was advanced to the co-ordination of the various subjects. To this end, before proceeding to France, the Infantryman was trained in attack practices, comprising all phases of attack in the field, from the formation of the line in which he goes forward with the advance under cover of fire to the assault on the trenches, to the final consolidation of the captured position.

No man was permitted to proceed to France until he had passed adequate tests, and when he was embarked as a reinforcement he carried with him, in his Pay-Book, a complete summary of his training, so that the Officer under whom he was destined to serve in the field was able to place him where his abilities could be used to the best advantage. In addition to

fighting troops it was, of course, necessary to furnish such details as cooks, stretcher bearers, transport drivers, clerks and signallers, for all of whom special training had to be provided.

Signalling was of particular importance and the Canadian School of Signalling was established at Seaford Camp to provide Instructors for Infantry Battalions. It was opened in January, 1917, and was closed immediately after the signing of the Armistice. During the period of its existence 1,550 Officers and 1,930 Other Ranks qualified at its courses.

(c) Cavalry Training.—The training of reinforcements for the Canadian Cavalry Brigade and the Canadian Regiment of Light Horse was carried out by the Canadian Reserve Cavalry Regiment, which was stationed at Shorncliffe until the autumn of 1918, when it was moved to Bordon Camp in Hampshire. Owing to the conditions of warfare, the Cavalry had frequently been called upon to undertake the duties of Infantry, and it was therefore necessary that all Cavalrymen should be first given a condensed course of training similar to that undergone by the Infantry soldier. The Cavalryman, however, was of course called on to carry out his mounted training and instruction in the Hotchkiss Machine Gun as well.

These varied subjects were covered in a 16 weeks' course as the adaptability of the Canadian recruit made it possible to turn out adequate Cavalry reinforcements in this limited period.

(d) Artillery Training.—The Canadian Reserve Artillery, situated until the Autumn of 1918 at Witley, when it was moved to Bordon, was one of the largest and most important of the Canadian Training units in England. It provided reinforcements for the Royal Horse Artillery, Field Artillery, Siege Artillery, Heavy Artillery, Anti-Aircraft Artillery, together with Signallers for Artillery Units and Formations.

The Canadian Reserve Artillery was organized into a Reserve Brigade for the Field Artillery, and into a Composite Brigade to supply reinforcements for the other branches of this Arm of the Service. The actual instruction of recruits was carried out in the Canadian School of Gunnery, which was provided with wings responsible for gunnery, riding and driving, musketry, anti-gas measures, signalling and physical training.

Apart from the Infantry training, which it was necessary to give all recruits, it took from five to six weeks to turn out an efficient gunner or driver, and about two weeks to qualify a man as a signaller.



Lieut.-General Sir R. E. W. Turner, V.C., Chief of the Canadian General Staff, inspecting men in training at Bramshott Camp.



(e) Machine Gun Training.—The increased arming of Infantry Battalions with the Lewis Gun and the development of the Vickers or heavy Machine Gun, with a resultant change in tactics, necessitated the creation of the Machine Gun Corps, and the Canadian Machine Gun Corps was specially established to meet the needs of the Canadian Forces in the Field.

The personnel was trained at the Canadian Machine Gun Depôt which was established at Seaford Camp, where there was excellent accommodation and suitable country for training in manœuvres, the latter being a highly necessary consideration. The same Depôt also furnished Instructors for the Infantry, Cavalry and Motor Branches of the Canadian Machine Gun Corps, which, since its creation, has played a most important part in the operations of the Canadian Corps.

- (f) Engineer Training.—The importance of Engineer Units in the field cannot be over-estimated. The greater the knowledge and skill of their personnel the more vital their value to the fighting troops. Skilled workmen are essential, and carpenters, bricklayers, masons, iron-workers and men drawn from similar trades, were selected for the Canadian Service. The Engineer for service in the field must, however, first be made a fighting man, and the military efficiency of the Canadian Engineer was established at the Canadian Engineers' Training Centre at Seaford. Here his technical knowledge was adapted to his military duties and he was given instruction in such special subjects as the construction of trenches, dug-outs, headquarters, gun-emplacements wire entanglements and concrete and timber shelters. Road repairing, water supply, bridge building, pontooning and the rehabilitation of devastated areas, were also included in the training of the Canadian Engineers. In the mounted wing, recruits were taught to ride and drive and to operate the transport equipment of the unit.
- (g) Engineer Signals.—Signals constitute a highly technical branch of the Engineers' Service and Engineer Signallers occupy an important position in the military organization, their duties being quite distinct from those of the Battalion Signallers.

It is their business to provide communication between the higher units and formations, and the personnel must be efficiently trained in the construction and use of telephones and telegraphs. The training of the reinforcements for the Corps and Divisional Signal Companies was carried out at the

signal wing of the Canadian Engineers' Training Centre. Here there was erected a complete set of instruments representing the system employed in France, from General Headquarters to Brigades and Battalions, and it was upon this installation that the recruit received his instruction before proceeding Overseas.

A similar unit, for which the Canadian Engineers' Training Centre acted as a reserve, was the Anti-Aircraft Searchlight Company, at which recruits were trained in the work of detecting hostile aircraft and so on.

(h) Canadian Army Medical Corps.—In addition to professional attainments a Medical Officer must have a thorough knowledge of military routine to enable him to carry out his duties in the field. This military training of Medical Officers was carried out at the Canadian Army Medical Corps Training Depôt at Shorncliffe, where the Other Ranks of the Canadian Army Medical Corps were also trained in drill and discipline, as well as the routine work of handling the wounded and the evacuation of casualties.

CANADIAN CAMPS AND TRAINING AREAS.

The principal Canadian Camps in England were:

Bramshott, Witley, Seaford and Bordon.

These Camps were on the Downs of Surrey, Sussex and Hampshire, in close proximity to the great Imperial Training Centre of Aldershot, and housed the great bulk of the Canadian Forces in England.

Bramshott and Witley were primarily Infantry Camps, while Bordon was latterly assigned to the Artillery, Cavalry and Canadian Army Service Corps. Musketry courses were carried out in the neighbouring Camp of Mytchett, which was equipped with complete target accommodation of the most modern type. Seaford, the other large Canadian Training Area, while it provided accommodation for a number of Reserve Battalions, also served as the Headquarters of the Canadian Engineers' Training Centre and the Canadian Machine Gun Depôt.

TRAINING OF OFFICERS.

From the time the Canadians first went into action at the Second Battle of Ypres the supply of properly trained Officers for Units at the Front was one of the most urgent considerations of the Military Authorities in England.





Bayonet fighting was one of the features of the Course at the Cadet School at Bexhill where so many efficient Canadian Officers were trained.

It was decided early in the War that Commissions should be granted to non-commissioned officers and men who showed that they possessed the requisite qualities for leadership; but while service in the Field was a valuable apprenticeship, special training was of course absolutely necessary.

Infantry Officers.—To ensure this the Canadian Training School for Infantry Officers was established at Bexhill-on-Sea in Sussex. Here candidates for commissions were given instruction in all branches of practical military knowledge, while junior Officers who needed additional instruction were given special courses and advanced training. The School, which was noted for its precision in drill movements, its *esprit-de-corps* and general efficiency, was an object of great interest to Imperial Officers, among whom Field-Marshal Lord French, when Commander-in-Chief of the Home Forces in Great Britain, placed it on record that he was much impressed by the establishment's smartness, keenness and efficiency.

Machine Gun Corps.—Candidates for commissions in the Canadian Machine Gun Corps, after completing the Infantry course at Bexhill, were given further instruction in the use of the Machine Gun and the tactics of that Arm of the Service at the Canadian Machine Gun Depôt at Seaford.

Artillery.—Officers and Cadets for the Artillery were given a special five months' course of training at the Canadian School of Gunnery at Witley Camp and later at Bordon Camp.

TRAINING OF INSTRUCTORS.

(a) Canadian Infantry Instructors' Pool.—The maintenance of large drafts of officers necessitated a constant supply of highly trained and competent instructors, both of commissioned and non-commissioned rank. The varying strengths of the Reserve Battalions, however, made it difficult for Commanding Officers to maintain a suitable instructional cadre, and to meet the difficulty in respect to instructors of non-commissioned rank, it was decided to establish an Instructional Pool of non-commissioned officers. Accordingly, in association with the Canadian Training School, an establishment of 300 Sergeant Instructors was provided to meet the needs of Units. These Sergeant Instructors were carefully selected and carefully trained, their instructional ability being developed to the highest possible degree. They were then available for any Unit in which the influx of recruits necessitated a temporary increase in the number of instructors.

(b) Canadian Trench Warfare School.—The object of the Canadian Trench Warfare School was not to train reinforcements but to train instructors to deal with recruits. It was situated at Bexhill-on-Sea, and, acting in close association with the Canadian Training School, provided instruction for officers and non-commissioned officers in special branches of Infantry training. Different wings of this school dealt with Bombing, Rifle Bombing, Anti-Gas Measures, Entrenching and the employment of light Trench Mortars (Stokes Gun). Opened early in 1917 and closed immediately after the signing of the Armistice, this School trained upwards of 500 officers and 3,508 other ranks as instructors. It was a strict condition that only Overseas casualties could be accepted for instruction.

The rapidly changing conditions of warfare and the new devices which were constantly being brought out, rendered it necessary for instructors to receive "refresher" courses at comparatively short intervals. The school, therefore, not only maintained the instructional power in the Reserve Battalions but consistently kept instruction up to date.

(c) Canadian School of Musketry.—In spite of the complication of warfare by all manner of fresh mechanical devices, the rifle has maintained its position and the marksmanship of the Canadian Infantry has been notably excellent.

The importance of Musketry in the training of all Arms of the Service, indeed, made it desirable that a separate School should be available for the provision of instructors in this branch, and the Canadian School of Musketry was opened at Mytchett in November, 1916.

This Camp, about equi-distant from Witley and Bramshott, and in close proximity to up-to-date ranges, provided thorough courses of instruction in the use of the rifle, revolver and Lewis Gun. It was closed on the signing of the Armistice, 2,142 officers and 4,657 other ranks having up to that date qualified as instructors on its ranges.

(d) Canadian Army Gymnastic Staff.—The Canadian Army Gymnastic Staff provided a cadre of highly qualified instructors in physical training, bayonet fighting, recreational training and remedial gymnastics. The school at which these instructors were rendered proficient was originally situated at Shorncliffe, but subsequently moved to Bordon. Up to November, 1918, 1,300 officers and 2,966 other ranks had attended its courses.

CANADIANS AT IMPERIAL SCHOOLS.

While every effort has been made to render the Canadian Forces self-supporting it has, on occasion, been considered advisable to take advantage of the facilities offered by some of the schools of instruction provided by the Imperial Authorities in England. In some cases this procedure was adopted in order to effect economy, notably in regard to Camouflage and Wireless Telegraphy, as there was not a sufficient number of Canadians requiring instruction in these subjects to justify the establishment of separate schools. In other cases attendance at Imperial Schools was desirable in order to standardise instruction in special subjects.

One of the most important schools of instruction established by the Imperial Authorities during the War was the Senior Officers' School at Aldershot, which was designed to prepare suitable officers for the position of Battalion Commanders. The course was of three months' duration and the 135 Canadian Officers who passed through this school were all reported on very highly.

During the year prior to the Armistice, 11 Canadian Officers also attended the Senior Staff Course and 27 Officers the Junior Staff Course at Clare College, Cambridge, and in every case these officers were subsequently recommended as competent to fill appropriate staff positions.

It is, indeed, a matter for congratulation that Canadian officers and non-commissioned officers attending Imperial Schools have throughout acquitted themselves with credit. This was particularly notable in the case of the School of Gymnastics at Aldershot, which trains the Gymnastic Staff of the British Army.

RE-TRAINING CASUALTIES.

Officers.—It was found that in many cases Canadian officers who had become casualties did not progress towards recovery as rapidly as might have been hoped for on account of the lack of facilities for taking recuperative exercise on properly conducted and scientific lines.

The Officers' Casualty Company was therefore established in a comfortable house with spacious grounds at Bexhill-on-Sea, and here officer casualties were given every opportunity of achieving fitness by means of physical training, athletic sports and special drills carried out under expert and careful direction. In addition the Authorities did everything possible to create an atmosphere of cheerfulness, encouragement and enthusiasm, which did as much to rehabilitate the mind as physical means did to rehabilitate the body, with the result that this institution was an unqualified success.

Other Ranks.—As in the case of the officers the Canadian Authorities took every possible measure to re-establish both the morale and the physical fitness of casualties among Other Ranks.

At the various Convalescent Hospitals members of the Canadian Army Gymnastic Staff who were possessed of a knowledge of anatomy and physiology, were detailed to supervise the physical training in general and remedial gymnastic training in particular. The latter had a most important place in the retraining of the casualties as the removal of physical disabilities by remedial gymnastics not only fitted great numbers of the men to return to the field but also effected the cure of disabilities which would otherwise have formed the basis of claims for pensions.

From the Convalescent Hospital the casualty went to a Command Depot, where his remedial treatment, if any were still needed, was concluded, and where by means of a carefully graduated scale of training he was scientifically "hardened" to a point which enabled him to return to his Reserve Battalion.

As a result of this systematised and carefully graded method of retraining a very high percentage of Canadian Casualties was so completely reconstituted that numbers of men were enabled to return to the Front as entirely fit as when they had first proceeded to France.

INTELLIGENCE.

An important part of the work of the Intelligence Department consisted of protective intelligence and counter espionage work.

Every body of troops is liable to the incursion of undesirable and even dangerous characters, and the enemy did not scruple to attempt to make use of the Canadian Forces as a means of introducing their agents into England, as the carefully controlled ports of Great Britain left the Overseas Forces practically the only channel for such efforts.

The responsibility for protecting the British War Office in this direction was, therefore, at times considerable; but the vigilance with which all doubtful characters in incoming drafts were scrutinised, and prompt and definite action taken as occasion demanded, successfully defeated all such enemy attempts.

ATHLETICS.

Since its formation, the Canadian General Staff has regarded athletics as a most important branch of military training, as it was noticeable that the soldier who entered with vigour into athletic contests invariably displayed courage and resource in battle.

The Canadian Army Gymnastic Staff was, therefore, utilised to promote athletic sports throughout the various training areas in England, special attention being paid to new recruits in the Segregation Camps. The policy followed was to foster those forms of sport which enabled the largest number of men to participate, rather than to encourage those forms of athletics which appealed to the highly trained and specialised few. It was to further this end that the Canadian Military Athletic Association in the British Isles was established under the direction of the General Staff, and that championship contests were arranged between the different Areas. These championship meetings, which have aroused the greatest interest and enthusiasm throughout the Canadian Forces in England, and done so much to advance the physical fitness of the men, included Association Football, Boxing, Cross Country Running, Wrestling, Tennis, Swimming, Athletics and Baseball.

On September 7, 1918, a British Empire and American Services' Athletic Meet, comprising eight teams, was held at Stamford Bridge, London. The Canadian Forces were represented by 40 athletes, chosen from the winners of their own championship units, and received third place.

CANADIAN PARTIES AND PERSONNEL LOANED TO THE IMPERIAL AUTHORITIES FOR SPECIAL DUTY.

Among the most interesting developments in the Canadian Forces have been the requests which have been received from time to time from the War Office for parties of specially trained and selected officers and non-commissioned officers for duties of an important nature.

Mesopotamian Party.—Early in January, 1918, a request was received from the War Office for the services of a number of officers and non-commissioned officers to proceed to the Mesopotamian Expeditionary Force, for the purpose of organising, training and leading native troops to be raised from the tribes of Asia Minor and Mesopotamia.

Fifteen officers and 27 non-commissioned officers, all volunteers with excellent records in the field, were selected from the Canadian Forces, and left England during the same month, for Baghdad. At that place they joined the Force known as the "Dunster Force," and were distributed among the natives of the country. As need for organisation has now disappeared, this personnel has been given the opportunity of returning for demobilisation. Only 14 of the party remained to be returned to England at the end of March, 1919.

Northern Russia.—There are Canadian Volunteer Parties including approximately 41 Officers and 563 Other Ranks attached to the Allied Forces, the object of which is to protect the people in the Northern part of Russia against the Bolsheviks and to maintain the prestige of the Allies.

One of the two main bodies of the Allies is operating southwards from the Murmansk Coast and the other south from Archangel. Cable and wireless communication is maintained with Archangel. According to the latest available reports the inhabitants of these parts of Russia are in entire sympathy with the Allies and the general position is encouraging. On the Archangel Front, though there has been considerable artillery activity on the part of the Bolsheviks, the military situation had remained practically unchanged for some time up to the end of March.

On the Murman Front the morale of the Bolsheviks is reported as bad, and this is accounted for by the growing dissatisfaction with the Bolshevik regime at Petrograd.

The following are details of the general conditions and circumstances attaching to the Canadian Volunteers who, according to reports received at the beginning of March, 1919, were fit and well and in good spirits. Leave is given in rotation as it becomes possible to grant it. Application has been made to the War Office for the release of all Canadian troops in Northern Russia, and the reply has been received that, owing to the natural winter conditions prevailing in the Russian theatre of operations at that time, and also having regard to the tactical situation, it is not possible to

state any definite time for release of Canadian personnel. However, it is expected that all Canadian parties at present doing duty in Russia, loaned from the Overseas Military Forces of Canada, will be released for repatriation to Canada at the earliest possible date.

The troops are being supplied with special comforts through the Canadian Red Cross Society.

Archangel Force.—There is a considerable body of Allied Troops, including British, French, Americans and Russians, on the Archangel Front, operating from Archangel, which serves as the Base.

These Forces are serving on a front roughly 120 miles south-west, south and south-east of the Base along the River Dwina. In this zone of operations there are two distinct Canadian Sections:—

- (a) A small instructional and constructional party at Archangel itself.
- (b) The 16th Brigade, Canadian Field Artillery, serving with the Dwina and Vaga Columns.

It was in May, 1918, that the War Office approached the Canadian Authorities with a view to securing the services of a number of officers and non-commissioned officers to undertake duties similar to those which the Canadians had been asked to carry out in Mesopotamia. Accordingly a Volunteer Party of five officers and 11 non-commissioned officers proceeded to Archangel in June. This party has since then been co-operating with the Allied Forces in administrative work, in the reconstruction of such Units of the Russian Army as are still loyal to the Allies, and in securing the co-operation of the local inhabitants in the defence of that theatre of war. This party is reported to have done excellent work.

It was shortly after the organisation of the above party that the War Office asked whether the Overseas Military Forces of Canada could furnish two Batteries of Canadian Field Artillery. Volunteers were called for from the Canadian Reserve Artillery and the 16th Brigade Canadian Field Artillery, consisting of the 67th and 68th Batteries, with a strength of 18 officers and 469 Other Ranks was organised at Witiey and embarked for Russia on September 17, 1918. This Force, which consisted almost entirely of personnel with experience on the Western Front, was placed under the command of

Colonel C. H. L. Sharman, C.B.E., who had commanded the Canadian Reserve Artillery at Witley. The 67th Battery is under the command of Major F. F. Arnoldi, D.S.O., and the 68th Battery is under the command of Major W. C. Hyde, D.S.O. These two Batteries were in much of the recent hard fighting near Shenkursk, and have been specially mentioned by the G.O.C. Archangel as having materially assisted in repulsing the Bolsheviks.

On November 11, 1918, the Brigade fought a notable action, when, though apparently outnumbered, the drivers, cooks and batmen fought with such courage and stubbornness that they saved the Canadian guns. Up to April 1, 1919, the only casualties suffered by the party were—one Officer died of wounds, five Other Ranks killed, and several Other Ranks wounded and sick.

Murmansk.—The Allied Forces on the Murmansk Front have been, and are still, engaged in holding the Murman Peninsula and Railway to a point some distance south of Soroka, in order that communication with the Archangel Force may be kept up by land. To assist in this measure the Canadian Overseas Ministry was asked in August, 1918, whether it could furnish a number of Officers and Non-Commissioned Officers to act as instructors for a Special Mobile Force at Soroka. It was particularly requested that only personnel familiar with Arctic conditions such as exist in this district should be selected. Volunteers were again called for, and 18 officers and 74 non-commissioned officers arrived in Northern Russia under the command of Colonel J. E. Leckie, C.M.G., D.S.O., in October, 1918. This party has since been engaged upon administrative work and in the organisation of the defence of the country in conjunction with the Allied Forces. Some of the Instructors have been formed into a Special Super-Mobile Company, which consists entirely of Canadian officers and Other Ranks. is divided into 15 Sections, each with one officer and five Other Ranks, six sledges, and 18 dogs, and two large and two small tents, together with special rations and equipment. This Super-Mobile Company is employed on any particular mission which necessitates long journeys across country. A march was recently carried out by British troops from Soroka to Onega, a distance of some 200 miles over a winter track. The entire transport for this journey was supplied and organised by the Canadian Mobile Force, which in no small measure contributed to the success of this arduous march.

The remaining Canadian Instructors are regarded as having been invaluable in training the various Companies which make up the Special Mobile Forces, in the use of dogs, sledges, ski and snow-shoe work under Arctic conditions. The personnel of the Companies is drawn from every Battalion, whether British, Serbian, Italian or Russian, on this Front. This party, up to the end of March, had suffered no casualties.

Strengths. Northern	Russia	ı :			
				Officers.	Other Ranks.
Instructional Party (Archangel).	• • •	••		5	11
16th. Bde. C.F.A. (Serving with Dvi.			• •	18	478
Special Personnel Mobile Force (Murmansk-Murm		• •		18	74
Total S	TRENG	THS		41	563

Palestine Party.—In the Summer of 1918, General Allenby requested the War Office for a Company of expert Bridge Builders whose services were urgently required in Palestine. Volunteers were called for from among the Canadian Railway Troops in France, and six officers and 250 Other Ranks proceeded to Palestine on September 28, 1918. The whole of this party arrived back in March, 1919, and was returned to the Railway Depot in England.

INSTRUCTORS FOR THE AMERICAN ARMY.

In January, 1918, a request was received from the War Office for the services of a number of Officer Instructors to proceed to the United States, together with a number of non-commissioned officers, to advise and assist in the training of the American Army for the Field.

A party of Specialist Instructors, consisting of twenty-five officers and twenty-five non-commissioned officers, was accordingly selected and despatched to the United States to work under the direction of the British Military Mission.

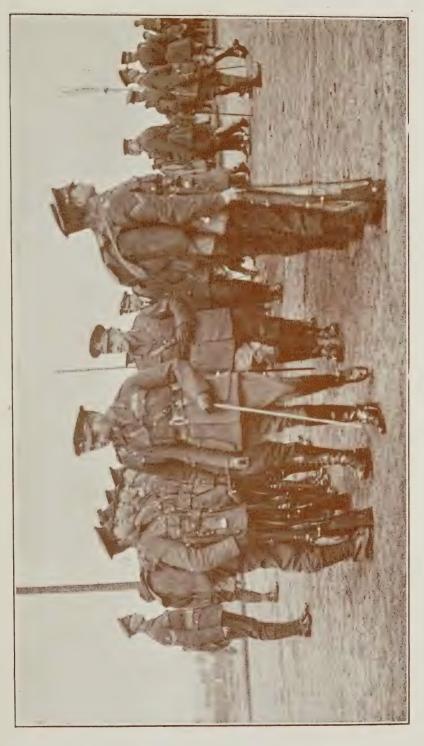
These officers were distributed amongst the various training Camps of the American Army and were attached to American Formations then in process of organization, their services in every case giving the highest satisfaction.

YOUNG SOLDIERS' BATTALION.

The number of boys under 18 years of age who enlisted in the Canadian Forces during the period of voluntary recruiting constitutes a remarkable tribute to the patriotism of Canada's youth. The presence, Overseas, too, of these enthusiastic young soldiers was in reality of considerable service as, owing to the measures taken to deal with them in the manner and in the spirit they so entirely deserved, they were, when they reached the statutory age, not merely so many raw recruits, but trained soldiers thoroughly fit and qualified for service in the field.

It was to secure not only their training but their best welfare, that the Canadian Young Soldiers' Battalion was established at Bramshott in the summer of 1917. Into this Unit were drafted all boys under 18 years of age who were then Overseas, many of them being withdrawn for this purpose from Units in the field. In this Battalion, under carefully selected officers and non-commissioned officers, the boys were put through a graduated course of training and by means of a most careful system of special exercises, special feeding and close supervision, every effort was made to build up their physique and health. They were afforded special recreational facilities, while their education was improved under the direction of a competent schoolmaster and in co-operation with the Khaki University.

The Battalion was demobilised on December 7, 1918, and the personnel returned to Canada. Throughout the period of its existence it had maintained a strength of from 600 to 700 and had provided 568 soldiers for service in France as the lads became of a suitable age. Apart, however, from its Military uses as a Reinforcing Unit, the Young Soldiers' Battalion did much good work for numbers of young Canadian citizens.



The King was deeply interested in the Canadian Young Soldiers Battalion. His Majesty is here inspecting the Guard of Honour they furnished at Bramshott Camp.



ADJUTANT-GENERAL'S BRANCH.

INDEX.

_					PAGE
Introduction					 27
ESTABLISHMENTS					 27
TAKING ON THE ST	RENGTH	of O	FFICER	S	 28
PROMOTION AND AP	POINTM	ENT O	f Offi	CERS	 29
STAFF APPOINTMENT	rs, Eng	LAND			 29
OFFICER REINFORCE	EMENTS				 29
Exchange of Office	CERS				 30
RETURN OF STUDEN	TS TO	Canad	Α		 32
SECONDED OFFICERS	5				 33
Officers' Record	Section	N			 34
Medals, Honours	AND AV	WARDS			 35
DISCIPLINE AND MI	LITARY	Law			 37
EMPLOYMENT OF CI	VILIANS				 37
CEREMONIAL					 38
COMPASSIONATE LEA	VE				 38
CATEGORISATION					 39
RETURN OF PERSON			DA		 42
ENLISTMENTS IN EN	GLAND				 43
Discharges					 44
Transfers					46
ALLOCATION AND EM					
Men					 47
CARE OF SOLDIERS'					 49
STATISTICS					 53

BATTALION BRIGADE DIVISION CORPS G. H.Q. ARMY DIAGRAM SHOWING CHANNELS OF COMMUNICATION (ADJUTANT GENERAL'S BRANCH STAFF.) Brigade Major General Staff. C.G.S. MGG.S. B.665. CS01 Staff Officer to M.G.R.A. Staff Office to BGRA Statf Officer to MGR.A. Bde Major Staff Lt Class I Quarter-Master General's DAGMG Branch. DAGMG. A.a.m.G. AQMG. O.M.G. DAGMG D.GMS. Adjutant of Battalion DMS. D.O.M.S. O.C. Train A.O.M.S. Director of Transport Director of Shipping Slaff Capt. Bds. D.A.G.(Base) Staff Officer Staff Officer AAG (8) 10 C.E. Adjt. R.E. Adjutant Generals D.AG(M) A.A.G. AAG. A.M.S. DAROMG A.A.B. QM.G. A.G DAAG Staff Capt. DAAG 44.6. 446. D.A.G. (France) Staff Capt. R.A. Staff Capt. R.A. Adit R.F.A. Bde. AMS AAG, AAG. D.A.G (RS) Staff Capt R.A. Staff Officer to MGR.A.

Adjutant-General's Branch.

INTRODUCTION.

The duties which fall to the Adjutant-General's Branch of the Overseas Military Forces of Canada are so multitudinous and complex that it is impossible to do more than include a brief review of its principal functions in the present report, which summarises the work of the Branch for the year ending December 31, 1918.

The principal duties of the Adjutant-General's Branch may be divided as follows:—

- 1. Organization, Establishments, Mobilisation, and Demobilisation.
- 2. Supply of Military Personnel for the maintenance of the Forces in the Field.
- 3. Casualties and Invaliding.
- 4. Personal Services, Discipline, Personal questions regarding Officers and Other Ranks, Records, Issuing and editing of Adjutant-General's Orders, etc.

In addition, the Medical, Dental, Chaplain and Record Services come under the Adjutant-General's Department for General Administration, though the actual administration is exercised by the Director at the head of each of these Services.

Some idea of the volume of business transacted by the Department may be gathered from the fact that the daily files of correspondence which it handled during the year 1918, average approximately 7,500 a week.

ESTABLISHMENTS.

Every Unit and Formation of the Overseas Military Forces of Canada is on an Approved Establishment, *i.e.*, the detail of the numbers and ranks of officers, non-commissioned officers and privates, and the numbers of animals and vehicles which make up the Unit are all laid down in what is known as its Establishment.

All Establishments, whether new or amended, are submitted to the Minister, Overseas Military Forces of Canada, in Council for approval and the approved Establishment is then forwarded to the Governor-General in Council, Canada, for confirmation. It will thus be seen that the whole basis of the organization strength and the various ranks to be held by officers and non-commissioned officers is contained and controlled by the Establishment as authorised or amended from time to time, and that no promotions or increases are permitted without further authority.

During the year 1918, 59 Establishments for Great Britain and 52 Establishments for France were reviewed and approved and 128 amendments to Establishments (44 in Great Britain and 84 in France) were also dealt with.

TAKING OF THE STRENGTH OF OFFICERS.

The supply of officers for the Overseas Military Forces of Canada was found from the following sources:—

- 1. Officers despatched from Canada as reinforcements in response to specific demands.
- 2. Non-commissioned officers and men granted commissions in the field or at the conclusion of service in the field.
- 3. Selected Draft Conducting Officers (officers placed in charge of Drafts from Canada).

With reference to category 1, demands were sent to Ottawa as required for officers of reinforcements:—

- (a) Canadian Army Medical Corps.
- (b) Canadian Army Veterinary Corps.
- (c) Canadian Army Dental Corps.
- (d) Canadian Army Chaplain Services.

With reference to category 2, as detailed elsewhere an arrangement existed with the Canadian Corps whereby a regular supply of cadets was despatched from France for training at the Canadian Cadet School, Bexhill.

With reference to category 3, officers who arrived in charge of drafts were in the normal course returned to Canada. These officers, however, could be retained for service with the Overseas Military Forces if required. The majority of conducting officers were keen to serve in the Field, and it was necessary to give preference to those who had already seen service and who had been evacuated to Canada suffering from wounds or sickness, but had afterwards become fit for duty. In all cases it was necessary that they should be under 35 years of age and fit for General Service.

PROMOTION AND APPOINTMENT OF OFFICERS.

All appointments and promotions are dealt with by the branch of the Assistant Military Secretary and submitted to the Minister, Overseas Military Forces of Canada in Council, for final approval.

All appointments and promotions of officers of the Canadian Forces in England and France are promulgated in the "London Gazette."

STAFF APPOINTMENTS, ENGLAND.

A certain number of officers were attached to each Command Headquarters in England for training in Staff Duties. These officers were specially selected from among those with long service in the Field with a combatant Unit, and who had been well reported on by the various Commanding Officers under whom they had served.

These officers were known as Staff Learners, and those who did not possess the qualifications essential for staff work were returned to regimental duty. Those who showed promise were sent on for their training for Staff Duties to take the Staff Officers' Course at Clare College, Cambridge. Candidates for these courses were almost invariably selected from among those who already held Junior Staff Appointments.

Upon vacancies arising for staff appointments, the first consideration was given to those officers who had been most favourably reported on while learners and had satisfactorily passed the Staff Course at Cambridge.

A similar system generally was carried out as regards staff appointments in France.

OFFICER REINFORCEMENTS.

Apart from officers who had been evacuated from France owing to wounds or sickness and who were subsequently passed as fit again for General Service, practically no exceptions were made to the general policy which provided that officer reinforcements for the Canadian Corps should be drawn from the rank and file serving in France. In the case of the latter it was required that candidates should be recommended for commissions by the officers commanding their respective Service Units in the field.

For the more technical Arms of the Service, such as the Artillery and Engineers, graduates of the Royal Military College of Canada and Undergraduates of Canadian Chartered Universities were accepted periodically from Canada. It was also for technical reasons that further exceptions to the general policy were made in respect to the Canadian Forestry Corps and the Canadian Railway Troops.

Organized on a territorial system, each Infantry Service Unit in France had its affiliated Reserve Battalion in England, and with each of these Reserve Units a small reinforcement pool of officers was maintained to meet the demands from France. For all Arms or Branches of the Service, other than the Infantry, it was only necessary to maintain one Central Reinforcement Pool of officers for each service or branch.

With a view to the conservation of personnel and other obvious economic reasons, these pools had to be kept as low in number as was consistent with safety. The pools, therefore, contained a five months' supply of officers, based on the carefully compiled statistics of the normal monthly demands for each Arm or Branch of the Service.

In addition to the Reinforcement Pools maintained in England, there was also a fixed number of fully trained officers for each Unit in the field available from the Canadian Corps Reinforcement Camp. When casualties occurred they were immediately replaced from the Reinforcement Camp, which in turn drew upon the Reinforcement Pools in England.

EXCHANGE OF OFFICERS.

It was decided that one means of securing a better coordination between all Formations of the Overseas Military Forces of Canada would be to arrange for an exchange of officers between Formations serving in England and in France, and a settled policy in this respect was finally laid down as follows:—

Brigadier-Generals.—It was decided that the Commands of First Class Canadian Training Areas should be open to Brigadier-Generals in the Canadian Corps, the normal tenure of such a command to be from four to six months, when they would be replaced by other Brigadiers from the Front. The qualifications for a good commander of a Brigade in the Field differ from those requisite in the commander of a training area. Provision was, therefore, made

that where a Brigadier returned from France proved unsuitable in the command of a training area, the question of his disposal should be made the subject of a Conference between the Chief of the General Staff and the Corps Commander, the object being to ascertain whether it were desirable in the best interests of the Service that the case of the Brigadier under discussion should be treated as exceptional.

Battalion Commanders.—The Command of all Second Class Training Areas and all Reserve Battalions in England was open to officers who had commanded Battalions in the Field and held appointments of a similar nature, and whose services had proved satisfactory. Normally the tenure of such a command was from four to six months, at the end of which time these officers again became available for return to France in exchange for further suitable officers from the Field.

The case of an officer who proved unsuitable for such commands in England was dealt with in the same manner as that of Brigadiers who were considered unsuitable for the Command of First Class Training Areas in England.

Administrative Appointments.—Where administrative and staff appointments were open in England, the Chief of the General Staff conferred with the Corps Commander on the question of filling them, and every effort was made to come to an arrangement which was mutually satisfactory.

Provisions of Exchange.—It was obviously unlikely that efficient service would be rendered in England by an officer who felt that his appointment was merely a stepping stone to Canada; and it was also recognised that an officer returned from the front, merely for reasons of health, should have the right, after a period of rest, to a position equal to that which he had left, provided that his stay in England had not been prolonged beyond reasonable limits.

It was, therefore, laid down that commands in England should be filled by officers whose services in France had not only been reported on as satisfactory but whom the Authorities in France declared to be acceptable for return there.

Still further to increase the co-ordination between all Formations, whether in France or in England, it was in addition decided, that all officers employed in the British Isles who were fit for General Service, but had not seen Service in France, were to be replaced at the earliest possible moment by those

who had. It was at the same time laid down that the term "Service in France" signified:—

- (a) Service on the Establishment of a Unit in France for at least six months.
- (b) Service as a supernumerary officer attached to a Unit in France for a similar period, where, through no fault of his own, the officer, though reported on as efficient by the Head of the Department to which he was attached, had not been absorbed in the Establishment.

Other Ranks.—Subject to the necessity of rectfaining in England, non-commissioned officers and men who were medically unfit for Service in France, or whose special qualifications rendered their services more valuable in England, and their replacement especially difficult, the general policy as outlined in respect to officers was extended in a similar manner to Other Ranks.

The whole policy which was found to meet practically every contingency, worked with smoothness and achieved most satisfactory results.

RETURN OF STUDENTS TO CANADA.

After the War had been in progress for some time it became apparent from the number of University students who had enlisted in the middle of their courses, or as they were about to begin them, that the country was likely to suffer from scarcity in the Medical, Dental, and Veterinary professions unless some steps were taken to remedy the situation.

Accordingly it was decided to return to Canada, for the purpose of continuing their studies, students of the above professions who had at the time of enlistment completed one year of their courses at a recognised University or College. This step was taken, not with a view to benefiting the students in question, or giving these professions any preference, but with a view to meeting the needs of Canada. Such students as were qualified to be returned under the scheme were kept with their Units Overseas until it was time for them to return to resume their studies at the opening of the Fall term. Up to the end of November, 1918, the following had been returned:—

Medical Students			 184
Dental Students			 46
Veterinary Students			 26
Total Students	retu	rned	 256

SECONDED OFFICERS.

The number of Canadian officers attached or seconded to the Imperial Troops or other Forces outside the Overseas Military Forces of Canada was 1,281, at the date of the Armistice. Of these 824 were seconded or attached to the Royal Air Force, of which number, 511 were Flying Officers, 57 were Administrative, Technical or Instructional Officers and 256 were under instruction in aviation.

Every facility has been granted to Canadian officers desiring to serve with the Royal Air Force as Flying Officers, but service on ground duties has not been encouraged except in the case of officers specially qualified, or in the case of Flying Officers unfit for further service in the air.

Also at the date of November 11, 1918, 384 officers were seconded to the War Office for Military duties. Of these 133 were seconded for duty on the Lines of Communication, 8 were employed with the Salvage Corps and 18 with the Labour Corps. Twenty officers were holding other appointments with Imperial Formations, 9 were employed as Instructors at Army Schools and 27 were with the Railway Transport Service. Fifty-seven officers were with the special Military Mission, including the British Military Mission to the United States of America, and the North Russian Mission. Fourteen were serving with the Royal Garrison Artillery, and 25 Medical Officers were on loan to the Royal Medical Corps. Seventy-three officers were employed on various other duties. Eight officers were attached to the Admiralty and 67 officers. possessing special qualifications, were employed in various other Departments of the British Government.

The cost of pay and allowances to officers seconded or attached for purely Military purposes is borne by the Canadian Military Funds; but pay and allowances of officers seconded for semi-military or civil duties is refunded by the Imperial Government. The general question of the incidence of the cost of the pay and allowances of Canadian officers, seconded or attached to the War Office, is now the subject of negotiations between the Imperial and Canadian Governments

In view of the cessation of hostilities, the War Office has been requested to return all Canadian officers seconded or attached to the Imperial Forces, other than those serving with the Royal Air Force, as soon as their services can be spared, and no further attachments or seconding will be carried out. The whole question of those officers who wish to remain in the Royal Air Force is receiving special consideration.

OFFICERS' RECORD SECTION.

The "Record of Service" and all documents concerning each officer and Nursing Sister who leaves Canada for duty with the Overseas Military Forces of Canada is dealt with by the Assistant Military Secretary's Branch. The Assistant Military Secretary's Branch does not directly form part of the organisation of the Adjutant General's Branch, but as the section dealing with records is closely allied to Personal Services (Officers), it is considered desirable to include its activities in this section of the report.

For the sake of convenience this section is housed at the Canadian Record Office in London, and the "Record of Service" it maintains includes all entries affecting an officer's movements, promotions, honours and awards. His next-of-kin is on record and casualties are also entered.

In addition to maintaining a "Record of Service" for each officer, this department is charged with the compilation and maintenance of a Gradation List of officers of the Overseas Military Forces of Canada by Regiment or Corps.

This list shows the seniority of each officer, together with the Unit within the Regiment or Corps to which he is posted, and further gives particulars of any appointments which may be held by him. The Gradation List, which is further used for recording the Establishment of each Unit within the Regiment or Corps, is also employed for checking and maintaining the Canadian Section of the Army List in which all changes are recorded monthly.

The number of officers allotted to each Unit is laid down under War Establishments, and the promotion or appointment of an officer cannot be made unless there is a vacancy on the Establishment of the Unit in which the promotion or appointment is proposed.

The procedure in relation to the Record Section of the Assistant Military Secretary's Branch is similar to that followed in the records of Other Ranks, which is dealt with under the section relating to the Canadian Records Office in London.

MEDALS, HONOURS AND AWARDS.

It is gratifying to record that since the Overseas Military Forces of Canada first went into action they have been awarded upwards of 17,000 Medals, Honours and Awards, including 53 Victoria Crosses, 1,885 Military Crosses, 19 Distinguished Flying Crosses, 1,204 Distinguished Conduct Medals and 6,610 Military Medals.

Medals.—At the present time the general question of Service Medals is under the consideration of the Authorities. Up to date, the services of soldiers who have served in a theatre of war previous to certain dates mentioned below have received recognition by the grant of distinctive decorations known as the Mons Star and the 1914-15 Star respectively. All Canadians who served in a theatre of war previous to November 22-23, 1914, are entitled to the Mons Star, while those who served between that date and December 31, 1915, are entitled to the 1914-15 Star.

Owing to the distance of Canada from the scene of active operations and the time involved in transporting her troops to England and France, the number of Canadians entitled to the Mons Star is largely confined to those who saw service with Imperial Units.

Amongst those entitled to the 1914-15 Star are those who crossed to France with the Princess Patricia's Canadian Light Infantry the First and Second Divisions, the Cavalry Brigade and certain Lines of Communication and Artillery Units. A few members of the Overseas Military Forces of Canada are in possession of the Mons Star, having served in a theatre of war with a Medical Unit within the prescribed period.

Gold Wound Stripe.—The Gold Wound Stripe is issued to all ranks who have been wounded, gassed, or shell-shocked, in the presence of the enemy; it is also being issued in the case of wounds, etc., resulting from enemy air raids in the British Isles. The condition for the award of this stripe is that the name and casualty are published in the Official Casualty List.

Chevrons for Overseas Service.—These Chevrons are issued to all ranks, and in the case of members of the Overseas Military Forces of Canada the date of leaving Canada is the date for the award of the first Chevron. An additional Chevron is issued 12 months from this date, and so on. All those members of the Overseas Military Forces of Canada who left Canada

prior to midnight, December 31, 1914, are entitled to a Red Chevron as the first Chevron, and a Blue Chevron for each additional 12 months served out of Canada. Those who left Canada since December 31, 1914, do not receive the Red Chevron.

Good Conduct Badges.—Briefly, a Good Conduct Badge is awarded to a member of the Overseas Military Forces of Canada after having served two years in the Canadian Expeditionary Force, and a second Good Conduct Badge after the completion of five years' service. Former service in the Permanent Force or in the Imperial Forces is allowed to reckon towards these Badges, and men are also allowed to wear any Good Conduct Badges they may have earned by previous service in either of these Forces.

Silver War Badge.—Broadly speaking, the Badge is awarded to any member of the Overseas Military Forces of Canada on resignation or discharge from the Service on account of wounds or sickness caused by service, and on retirement or discharge as over age, the age limit being fixed at 45 years. In the case of surplus officers, it has not been possible to fix a definite age limit, and each case is treated on its merits. Service in a theatre of war is not necessary for the award of this Badge, it having been approved that service outside Canada is equivalent to service Overseas from England, which is the qualifying factor in the case of the award of this Badge to Imperial soldiers. In Canada the Silver War-Badge is known as the "B" Badge.

Badges known as "A," "B," "C," and "D" Badges are issued in Canada, and the conditions for the award of these Badges are laid down by Order in Council P.C. 1296. The "B" Badge (Silver War Badge) is the only Badge issued in England.

The King's Certificate on Discharge. — This Certificate is awarded to officers, warrant officers, non-commissioned officers and men who have served since August 4, 1914, Overseas in a theatre of operations with an Expeditionary Force in the present war, and been discharged under para. 392 (XVI.) or (XVI.a) King's Regulations, and whose disablement has been certified to have been caused or aggravated by Military Service, provided disablement or ill-health was not due to misconduct. It is also awarded to all ranks, who, not being included in provisions as above, were discharged under para. 392 (XVI.)

or XVI.a) King's Regulations, whose disablement has been certified to be directly attributable to the action of the enemy in air or naval raids.

DISCIPLINE AND MILITARY LAW.

The discipline of the Overseas Military Forces of Canada for the year 1918 was distinctly satisfactory, and this was largely due to the efficient administration and discipline by Command ing Officers and to the *esprit de corps* which has been nourished and developed among all ranks of the Canadian Forces

Originally, the administration of Military Law affecting the Canadian Troops in this country was carried out solely by the Imperial Authorities acting through the Army Council and the General Officers commanding the different Imperial Commands. Since December, 1916, however, this position was carefully but steadily modified by the adoption of the principles of control of Canadian troops in England by the Canadian Government through the Minister, Overseas Military Forces of Canada and his Military Advisers.

The first modification arose in connection with the applicability to Canadian Troops of the Royal Warrant for their pay, etc., and early in 1917 it was established that Canadian Orders in Council and Canadian Pay Regulations should govern this subject exclusively.

Since then the principle has been extended to all disciplinary regulations. King's Regulations (Imperial) are still, it is true, in general use, but this is for the most part a matter of convenience and it is recognised that they are only applicable where they are consistent with Canadian Regulations bearing on the same subject. Army Council Instructions and Routine Orders are only made applicable to the Canadian Forces when considered desirable by the Canadian Authorities. No Imperial Order or Army Council Instruction is applicable to the Canadian Overseas Military Forces unless made so in Headquarters Canadian Routine Orders.

EMPLOYMENT OF CIVILIANS.

The policy of employing women on clerical work connected with the Overseas Military Forces of Canada was governed by the consideration that it released Low Category men employed on clerical work for return to Canada, and the replacement of these men by women clerks further resulted in a considerable financial saving by the Canadian Government.

Women were also employed in Canadian Military Hospitals, Convalescent Homes, and Nursing Sister Homes in Great Britain, and a certain number were also employed in France. In the case of women employed as indicated above in the British Isles their administration was under the Director-General of Medical Services, Canadian; in France their administration came under the Assistant Adjutant General, Canadian Section, British General Headquarters.

CEREMONIAL.

The Overseas Military Forces were, and are, called on to furnish Escorts, Detachments, Bands, etc., for notable events taking place in London, such as the Opening of Parliament, the Lord Mayor's Show, and the War Loan Campaign. In addition, Detachments, Guards of Honour, Bands, etc., are furnished for any Canadian Celebration which may take place in England such as the Annual Commemoration Service.

COMPASSIONATE LEAVE:

When the First Contingent left Canada in 1914 the majority of officers and men had made, what seemed at the time, adequate provision for the management of their affairs and the well-being of their families during their absence, but with the unexpected prolongation of the War many unforeseen difficulties arose. There were many cases in which an officer or a man urgently required to return home temporarily, and to meet these cases it became necessary to lay down a policy under which a soldier could be granted leave to Canada for the purpose of adjusting his affairs, this particular form of leave being known as "Compassionate Leave."

The administration of this policy has involved a very difficult and delicate task, because after several years of war there were few families left in Canada who had not suffered in some degree, through illness or death of a member of the family, or from some unexpected financial or other disaster. The number of applications received for the return of men to Canada on the grounds of distress at home made it quite impossible to grant them all without completely disorganising the Forces in the Field. To meet this contingency, therefore, an additional policy was laid down giving the cases in which such leave could be granted. Many cases have from time to time come to the attention of the Overseas Authorities, who have reluctantly been compelled to refuse the applications as not

coming within the scope permitted by the general policy, but it will be realised that in a matter of this kind it was absolutely essential to draw a distinct line and to adhere strictly to the policy which had been authorised.

The Canadian public, however, may rest assured that this question has always received the most earnest and sympathetic consideration, and that when applications have been rejected it has been, not on account of any lack of sympathy, but only by reason of the exigencies of the military situation. Each individual application was most carefully gone into and studied before a final decision was arrived at.

The only proper method of instituting proceedings under the policy laid down was for a relative or friend of the soldier whose return was desired to make application to the General Officer Commanding the Military District in Canada in which the soldier's family resided, or in which the circumstances on which the application was founded had arisen.

The case was then investigated by the local Military Authorities, and if it was considered by them to fall within the scope of the general policy, their recommendations to that effect were forwarded to the Military Authorities at Ottawa who, in turn, forwarded their recommendations to Canadian Headquarters, London.

The cessation of hostilities and the commencement of the return of Canadian troops to Canada have done much to mitigate the problem of Compassionate Leave, although where it has been conclusively proved that a soldier was most urgently required at home in order to avert a great financial or domestic hardship from himself or his dependants, Compassionate Leave has been granted. At the same time, while there has been every desire to assist genuine cases, the most scrupulous care has been taken to prevent any abuse of the privilege.

CATEGORISATION.

For the purpose of knowing each soldier's medical condition and availability as a reinforcement, a system of medical categorisation, somewhat on the lines in use in the Imperial Forces has been in force since 1917.

Medical categorisation may, shortly, be described as the sorting of soldiers into groups in accordance with their medical fitness for Service.

This system created four distinct Medical Categories as follows:—

- Category A. Fit for General Service.
- Category B. Not fit for General Service, but fit for certain classes of Service Overseas or in the British Isles.
- Category D. Temporarily unfit for Service in Category A or B, but likely to become fit within six months.
- Category E. Unfit for Service in Category A or B, and not likely to become fit within six months. Awaiting discharge.

These Categories were general classification of medical conditions, and the first three were sub-divided as follows:—

Category A into-

- A 1. Men actually fit for Service Overseas in all respects, both as regards training and physical qualifications.
- A 2. Men who have not been Overseas, but should be fit for A 1 as soon as trained.
- A 3. Overseas casualties on discharge from Hospital or Command Depôts, who will be fit for classification as A 1 as soon as hardening and training is completed in Reserve Units.
- A 4. Men under 19 years of age, who will be fit for A 1 or A 2 as soon as they attain that age.

Category B was sub-divided in accordance with the nature of the work it is considered by the Medical Authorities the men classified in the sub-divisions are capable of performing.

- B 1. Capable of employment in Railway, Canadian Army Service Corps, Forestry and Labour Units, or upon work of a similar character.
- B 2. Capable of work in Forestry, Labour, Canadian Army Service Corps, Canadian Army Medical Corps (Base Units), and Veterinary Units, and on Garrison or Regimental outdoor employments.
- B 3. Capable of employment on sedentary work as Clerks, Storemen, Batmen, Cooks, Orderlies, etc., or, if skilled tradesmen, in their trades.

Category D into-

D 1. Soldiers discharged from Hospital to Command Depôts who are not considered physically fit for Category A, BUT WHO WILL BE SO upon completion of remedial training or hardening treatment.

Note.—The rôle of Command Depôts is to harden men discharged from Hospital before they join their Reserve Units for regular training. Under a trained staff, physical exercises and training are carried out at these Depôts and supervised by a Medical Officer. When the Commandant and Medical Officer are satisfied that a man is sufficiently hardened he is despatched to his Reserve Unit and placed in Category A.

D 3. A temporary Category, and denotes other ranks of any Unit under, or awaiting, medical treatment who, on completion of such treatment, will rejoin their original Category.

In order to obtain a uniform classification throughout, the following standards were laid down as a guide in placing men in the various Categories:—

- Category A. Able to march, see to shoot, hear well and stand Active Service conditions.
- Category B. Free from serious organic disease, and, in addition, if classified under—
 - B 1. Able to march at least five miles, see and hear sufficiently well for ordinary purposes.
 - B 2. Able to walk to and from work a distance not exceeding five miles, see and hear sufficiently well for ordinary purposes.
 - B 3. Only suitable for sedentary work, or on such duties as Storemen, Batmen, etc., or, if skilled tradesmen, fit to work at their trades.

It will be seen from the foregoing that Category A was the highest medical condition. The difference between Category A 1 and Category A 2 was purely one of training, and the responsibility for raising a soldier from A 2 to A 1 rested with the Officer Commanding the Unit in which the man was in training. The difference between Category A 1 and Category

A 3 was jointly one of training and medical condition, and the responsibility for raising men from Category A 3 to Category A 1 rested with the Officer Commanding the Unit in which the soldier was in training, in conjunction with the Medical Officer of that Unit.

The differences in all other Categories were of a medical nature, and a soldier could only be raised from Category B or Category D to Category A by the Medical Authorities. For this purpose all soldiers who were placed in any of the subdivisions of Category B were medically re-examined every month after having been placed in a sub-division of Category B, with the exception of men who were employed in certain offices or with Administrative Units, who were medically re-examined every two months. The Medical Officer making this re-examination had power to raise any soldiers in the sub-grades of Category B into Category A, but if, in his opinion, the soldier was not physically fit for the Category in which he had previously been placed, arrangements were made for the soldier to appear before a Medical Board composed of three or more Medical Officers, and his Category was determined by that Board

All Canadian casualties, except local casualties admitted to British hospitals and discharged in the same Category as they were when admitted, were discharged, through Canadian Hospitals, and on being discharged from Hospital were placed in one of the foregoing Categories. The officer in charge of the hospital might place a casualty in Category A or in Category B, or might declare the casualty fit to be discharged in the same Category as that in which he was admitted to Hospital, but if the soldier could not be classified by the Officer Commanding the Hospital, he appeared before a Medical Board at the Hospital, and was placed in a Category by that Board.

RETURN OF PERSONNEL TO CANADA.

Discharge Depot: Invaliding.—As it became necessary, from time to time, to despatch to Canada parties of men, principally those being returned by the Allocation Board, *i.e.*, men in a low category whose services were not required, as well as men who were being returned for special reasons, such as instructional purposes, it was essential that these men should be uniformly prepared and held for embarkation at short notice.

A Unit was, therefore, organised and known as No. 1 Canadian Discharge Depôt, and, in view of the fact that the majority of

sailings took place from Liverpool, it was located at Buxton. During the year ending December 31, 1918, the Buxton Discharge Depôt handled 21,622 men returning to Canada, of which number 1,152 were proceeding on furlough.

In the early part of 1918 permanent Transatlantic Conducting Staffs were appointed by the Militia Authorities in Canada. These Conducting Staffs, who were in charge of reinforcements from Canada, reported at the Discharge Depôt, Buxton, on arrival. They were then detailed by the Officer Commanding the Depôt to take charge of whatever party was returning to Canada, and, in addition to this Staff, an officer was detailed by Headquarters, Overseas Military Forces of Canada, to take charge of each district party under the command of the Officer Commanding the permanent Conducting Staff.

In addition to personnel returning to the Discharge Depôt, Buxton, there were men who, on account of their wounds or sickness, had been marked by the Medical Authorities as soldiers who should be invalided to Canada for further treatment. These men were known as Invaliding Cases, and until June, 1918, such men were returned to Canada in regular hospital ships which had been taken over by the Canadian Government and were making periodical crossings from England to Canada. After the sinking of H.M.H.S. *Llandovery Castle*, the practice of using hospital ships was discontinued, and vessels known as Ambulance Transports were employed. These vessels travelled under escort up to the time of the Armistice.

ENLISTMENTS IN ENGLAND.

Applications for enlistment into the Canadian Forces in England were constantly being received. Some of these were from persons who alleged themselves to be Canadians, and who had been called up for Service by the Imperial Authorities and who desired to serve with the Canadians rather than with the Imperial Forces; others were from Canadians, who, for various reasons, happened to be resident in England and who desired to join the Canadian Forces there. Requests were also received from Canadians who had, voluntarily or otherwise, enlisted and were serving with the Imperial Forces.

The last class of applicant was advised that he must apply through his Imperial Unit for transfer to the Canadian Forces, and where the Imperial Authorities saw fit to forward his request for such transfer, together with the statement that there was no objection to his discharge from his Imperial engagement and his re-enlistment in the Canadian Forces, his application was approved, provided that the man concerned satisfactorily passed a medical examination by the Canadian Authorities and was found in Category A as fit for General Service. All individuals applying for enlistment in England were advised that their applications could not be considered unless they furnished a Certificate of Canadian Citizenship issued by the High Commissioner for Canada in London. This Certificate was only issued by the High Commissioner after he had satisfied himself that the man's claim as to Canadian citizenship was well founded. In addition, all applicants had to submit to examination by the Canadian Medical Authorities and be found fit for General Service.

The applicant having fulfilled these conditions was sent to a territorially affiliated Reserve Unit. There he was again medically examined, and if considered fit, was enlisted. His completed documents were returned to the Adjutant-General's Branch and a record kept of his enlistment. The documents were sent to the Canadian Record Office, London, and a copy of the Attestation Paper sent to the Department of Militia and Defence, Ottawa, for custody. The man's Certificate of Canadian Citizenship was kept on file in the Adjutant-General's Branch.

The number of enlistments completed in England from the beginning of the War to December, 1918, was 1,733, representing approximately 10 per cent. of the applications actually received, the balance of applications having been rejected either as a result of medical examination or through inability to produce the requisite Certificate of Citizenship.

In some cases applicants were unwilling to persist in their applications after they had filed them.

Except in special circumstances applications for enlistment in England were only accepted for service in the Infantry.

DISCHARGES IN ENGLAND

Prior to the Armistice the discharge of Canadian Other Ranks in England might be roughly divided into two classes—those who were discharged in order that they might accept commissions or be re-engaged on some branch of the Imperial Service, and those who were discharged to civil life or to engage in work of National Importance. Those of the first class included soldiers whose applications for training with a view to commissioned rank in the Imperial Service had been favourably

considered and those who had undergone a course of training at a Cadet School and had been granted a commission in the Imperial Army. It also included those who had been granted commissions under the Admiralty and those who had been appointed Flight Cadets in the Royal Air Force.

The second class consisted of men who might have been asked for by the Imperial Authorities for work of National Importance in such departments as the Ministry of Munitions, the Ministry of Food and the Ministry of Shipping. Such men were usually in a low category, and in most cases it was considered that they would be of greater value if they were employed on such work rather than if they continued to serve in a Military capacity. In the same class also came the very infrequent cases of men who were discharged in England on compassionate grounds and also those cases of soldiers boarded for discharge or invaliding to Canada on account of medical unfitness, who had applied for discharge in England.

In respect to the last-named cases it was the settled policy of the Canadian Government that members of the Canadian Forces found no longer fit for War service should be discharged in Canada, and that discharge would not be permitted in England except under very exceptional circumstances and where grave hardship would otherwise be caused to the individual concerned. Applications under this heading were not numerous, but they were very carefully scrutinised as it was not considered advisable that the Canadian Government should allow disabled Canadians to remain in England. In all such cases the application had to be put forward by the man himself, and it should be clearly understood that before the application was allowed it was necessary to prove that very great hardship would be entailed if the applicant were returned to Canada. In addition the man was required to provide written guarantees by a responsible citizen in England to the effect that he would not become a charge upon the public, and it was also necessary that he should furnish a Magistrate's Certificate to the effect that the person acting as guarantor was able to fulfil his obligations.

All discharges in England were carried out through the 2nd Canadian Discharge Depot in London, and on being discharged the soldier was required to sign a waiver of any claim against the Canadian Government for free transportation to Canada. He was also required to sign a statement that he understood that by being discharged in England he would not be entitled

to receive the three months' bonus of pay under the arrangement which was then in existence. He was given the usual Discharge Character Certificates, and when his documents were completed they were sent for custody to the Officer in Charge of the Canadian Record Office, London, by the Officer Commanding the 2nd Canadian Discharge Depot.

Present Policy re **Discharges in British Isles.**—Since the Armistice, it has been laid down that a soldier may only receive his discharge in the British Isles provided—

- (a) He was born in the British Isles.
- (b) He has no dependents in Canada.
- (c) He has dependents or relatives in the British Isles in such circumstances as warrant his retention here for financial or domestic reasons.
- (d) He has a bona-fide offer of employment or has independent means of support irrespective of any pay or gratuity payable by the Government.

TRANSFERS.

Provided that the Commanding Officer of the Unit from which the soldier desired to transfer and the Commanding Officer of the Unit to which he desired to be transferred were in concurrence, no objection was raised to such transfer, provided it was from one combatant Unit to another.

Did a soldier fit for general service desire to transfer from a combatant to a non-combatant Unit, his application, if it had been duly recommended by the Commanding Officers of both Units, had to be submitted to the Adjutant-General's Department, and the application was not granted unless weighty reasons were shown for its being approved. An example of such a reason would be in the case of a man highly qualified in a technical way for work in a non-combatant Unit, such as the Forestry Corps or the Railway Troops, provided that there were a shortage of technical men in the Unit which required his services. It was, however, in any case, if the application were granted, the duty of the Commanding Officer of a non-combatant Unit to return the soldier so transferred to his combatant Unit as soon as his place could be filled by a man unfit for General Service.

MAN-POWER.

Allocation and Employment of Low Category Men.

Bearing in mind the fact that only men of the highest medical condition were of value as fighting troops, and as it early became apparent that the War would be of long duration, the question of the economic use of men became one of a pressing nature. It was, therefore, necessary to liberate from Units other than those Units actually engaged in fighting, all men who, under the system of Medical Categorisation, were marked Category A, and to use to the best advantage men of the lower categories for any Units which might be termed "Non-Fighting Troops."

Economy in man-power, too, made it necessary to ensure that the right man was doing the right work. With this object in view, experiments were made with several schemes and eventually it was decided to form a special Branch, under a selected officer in the Adjutant-General's Department, to undertake this work. Under the direction of this officer was a Board composed of officers who, in civil life, were themselves employers of labour or who were engaged in work similar to that which was being done by those Branches of the Service which were not classed as "Fighting Troops," such as the Forestry Corps, Labour Units and Railway Troops. This Board commenced its work in April, 1918.

No set rules for the allocation of men could be laid down, but in collaboration with the Medical Service the type of work which men in the various categories were capable of was fairly clearly defined, and the Board was given discretionary powers to allocate men to those branches of the Service to which it was considered such men would be most valuable.

The first duty of the Board was to review all the Low Category men employed in England to ensure that each man was employed according to his trade qualifications, and in accordance with the work which his medical condition allowed him to do. The Board, therefore, visited all Canadian Areas and Formations in England and carried out inspections and made recommendations for transfers, which were effected as expeditiously as possible; and for substitutions, which were carried out more or less gradually and methodically in order that none of the Services concerned should be dislocated.

Having completed this work, the next phase was the disposal of men who, through wounds or sickness were lowered in category and became available for disposal on completion of their hospitalisation. It was at this time decided that great benefit would be derived from giving all men, regardless of the category in which they might have been discharged from Hospital, a course of "hardening" treatment at the Command Depôts. Previous to this, "hardening" treatment had been confined to men who were discharged from Hospital as potential Category A men, such as men placed in the Temporary Category of D1. With the exception, therefore, of those men engaged on clerical or administrative work in England, or those who had been admitted to Hospital as local casualties, and who on completion of hospitalisation were fit to return to their former employments, arrangements were completed for hospital patients to be discharged from Hospital to the Command Depôts.

On arrival at Command Depôts, these men were graded for training according to their medical condition, and arrangements were made for the Allocation Board to visit the Command Depôts periodically and inspect the men who were expected to be discharged from the Command Depôts in a Low Category. Such men were brought before the Board one week prior to their expected discharge.

The Board allocated the men to whatever duty it was determined they were capable of carrying out, and on discharge from the Command Depôt the men were sent direct to their new Unit, the Command Depôt arranging with the Regimental Depôt or Reserve Unit upon whose strength such men were carried, to complete their transfer so far as the necessary Order, entries and documentation were concerned. Under this arrangement no time was lost in disposing of the soldier, as he was no longer returned to the Unit carrying him on its strength, there to await allocation by the Board.

In addition to this source of supply of Low Category men, there were also the men who broke down in category whilst undergoing training, or who broke down in category whilst carrying out their duties (other than training) in England. These men were immediately posted to their Regimental Depôts and were again brought before the Allocation Board on the Board's first visit to that Area.

In the process of examining Low Category men, the Board continually had to dispose of men who were not fit for any work in England upon the economic basis laid down. This provided that a man must be able to do 60 per cent. of the day's work required of a Category A man. Men who could not reach this standard were regarded as uneconomic to the Canadian Military Forces in England, and arrangements were therefore made for their immediate return to Canada.

It sometimes happened that a man allocated by the Board for duty with one of the Units or Services in England was found to be unfit to carry out the work which he had been given to do. He was then again brought before the Allocation Board when the Commanding Officer of his Unit stated why he did not consider the man to be fit for duty. The Board then allocated the man to some other Unit for duty or marked him for return to Canada, the Board basing its final decision on the new facts placed before it.

It will be seen that the duties of the Board were of an exceedingly difficult nature, but it carried out its work with great efficiency and fairness, and its labours resulted in effecting a saving of the greatest possible amount of Man-Power in the Overseas Military Forces of Canada

CARE OF SOLDIERS' GRAVES.

France.—The War had not been long in progress before it was realised that the care of soldiers' graves and the erection of suitable memorials for them would be a matter of vital interest to the whole Empire, and, in order to ensure that it would receive the careful consideration and attention it deserved, a National Committee was formed under the presidency of the Prince of Wales in 1916.

During the War, graves were under the control of the Directorate of Graves Registration and Enquiries (War Office). It was intended that this Committee should be responsible for these graves after the War.

In the early part of 1917 the Imperial War Conference decided that there ought to be some permanent Commission entrusted with the above duties, and recommended that application be made for a Royal Charter. This was granted in May, 1917, to the Imperial War Graves Commission.

The function of the Commission is to take over graves from the Directorate when the graves are in proper condition, and to erect memorials and to arrange for their care. The French Government acquired the land necessary for cemeteries, and have made a perpetual concession of such lands to the British Government.

The Commission went most thoroughly into the whole question, and appointed Sir Frederick Kenyon, the Director of the British Museum, as its adviser. In November, 1918, he submitted his report compiled after a most exhaustive enquiry and consultation with representatives of the principal interests involved, the Army, the relatives of the fallen, the religious denominations and the artists and others whose judgment might be of value in a work demanding imagination and tact. While it is not possible in this report to republish Sir Frederick Kenyon's report and recommendations, almost all of which were adopted by the Commission, it is possible to assure the Canadian public that the matter will be treated in a manner worthy of the subject.

Wherever possible, isolated graves of Canadian soldiers will be collected into the larger cemeteries. A uniform headstone of suitable material and appropriate design will be placed over each grave. Each headstone will have engraved on it the particulars of the soldier whom it commemorates, and a large cross will be erected in each cemetery to indicate the nature of the cemetery. The Commission has already laid down one principle of great interest, namely, that there will be an absolute equality of treatment, that is to say, that there will be no distinction between the headstones of officers and Other Ranks or of rich and poor.

There will be some cases in which bodies cannot be identified and many bodies have never been found. These, however, will not be neglected, and some memorial will be erected to the unknown, but not forgotten, dead.

Photographs of graves in France and Belgium may be obtained free of cost by the next-of-kin on application to the Director-General Graves Registration and Enquiries, Winchester House, St. James's Square, London, S.W. 1.

United Kingdom.—Canadian soldiers who have died in the United Kingdom are buried either in military cemeteries or in churchyards or corporation cemeteries. Altogether there are 3,492 graves of Canadian soldiers in the United Kingdom distributed over 634 cemeteries. The large number of cemeteries is due to the fact that in many cases the relatives of the deceased have had the soldier buried in a cemetery chosen by themselves.



THE TAKING OF VIMY RIDGE,



A remarkable photograph, taken under fire, of Canadian troops advancing to the attack on the memorable day which won them Vimy Ridge and brought them in sight of the promised land.

The great majority of the graves, however, are situated in military cemeteries near the large camps, where special plots have been assigned to Canadian graves. In the case of civil cemeteries soldiers' graves are grouped together wherever possible. All graves, however, wherever situated, are under the care of the Canadian Military Authorities, who see to it that they are attended to, except where they are satisfied that the relatives may be trusted to undertake this duty.

As soon as a soldier is buried, an oak cross is erected over the grave. While this is not intended to be the permanent memorial, it will endure until a more substantial one is erected. The question of the permanent memorial is receiving the attention of the Imperial War Graves Commission.

In the purely military cemeteries such as Brookwood, where a large number of Canadians are buried, the intention is that the headstones shall be uniform, as is intended in France. Photographs of graves are forwarded to relatives on request being made to Canadian Headquarters, London, the money for this purpose being furnished by the Canadian Red Cross Society.

Battlefields Memorial Committee.—This is an off-shoot of the Imperial War Graves Commission. Its duties are to erect memorials of battles, and to decide for which battles such memorials will be erected, and which Units will be mentioned on such memorials.

The Committee, which is representative of the various theatres of war, includes a member representing Canada.





BRANCH OF ADJUTANT-GENERAL O.M.F. of C.



D.A.G.

Col. F. S. MORRISON, C.M.G., D.S.O.



STATISTICS-ADJUTANT-GENERAL'S BRANCH.

INDEX.

The following tables give in statistical form all general information as to the Overseas Military Forces of Canada under the following heads:—

TABL	E I.—(Strengths) :—	PAGE.
(a)	Headquarters Staffs employed in England .	. 55
(b)	Strength of Headquarters Units in England .	. 55
(c)	Reduction of Reserve Units in England	. 56
(d)	Total number in each arm of the Service as a December 31, 1914, 1915, 1916, 1917 and 1918	
TABL	E 2.—(Casualties)	. 58
TABL	E 3.—(Reinforcements) :—	
(a)	Percentage of Reinforcements required to replace	
	monthly wastage	. 59
(b)	Distribution of Reinforcing Units at date of Armistice	
(c)·	Reorganisation of, and increase in, existing Unit	
	in the field	
(d)	Complete new Units despatched to France .	. 65
(e)	Arrivals from Canada and despatched to France 1918	
(<i>f</i>)	Canadian Parties and Special Personnel Loaned to Imperial Authorities	1



General Statistics Relating to the Overseas Military Forces of Canada.

ADJUTANT-GENERAL'S BRANCH.

TABLE I.—STRENGTHS.

(a)—Headquarters Staffs Employed in England.

The following schedule shows the reductions which have been made in the strengths of the Headquarters, O.M.F.C., from December 1, 1916, to November 11, 1918:—

Headquarters Staffs.	Officers.	Other Ranks and Civilians.	TOTAL.
December 1, 1916	134	566	700
April, 1917	123	490	613
June 6, 1918	76	363	439
August 10, 1918	68	322	390
November 11, 1918	61	319	380

(b)—Strength of Headquarters Units in England.

The following table gives the strengths of the Headquarters Units in England from November 30, 1916, to June 15, 1918, and at November 11, 1918:—

November 30, 1916	Offi- cers	O.R. and Civs.	October, 1917	Offi- cers	O.R. and Civs.	June 15, 1918.	Offi- cers	O.R. and Civs.
H.Q.			H.Q.			H.Q.		
Shorncliffe	101	272	Shorncliffe	50	221	Shorncliffe	21	81
Bramshott	80	214	Bramshott	63	210	Bramshott	40	178
Seaford	28	86	Seaford	23	147	Seaford	36	149
Crowboro'	21	64	Witley	62	191	Witley	43	164
Hastings	12	26						
Shoreham	10	82						
Total	252	744	Total	198	769	Total	140	572

Note.—Strength of Headquarters Units as at November 11, 1918:—Officers, 150 O.R. and Civilians, 507.

(c)—Reduction of Reserve Units in England.

The progressive reductions of Infantry Reserve Battalions, Infantry Reserve Brigade Headquarters, and Infantry Regimental Depots is shown by the following tables, which give the numbers of those Units as they stood on the accompanying given dates.

i. Infantry Reserve Battalions.

January 1, 1917 .. 57 Battalions.

January 15, 1917 ... 26 Reserve Battalions. January 15, 1918 ... 20 Reserve Battalions. June 1, 1918 ... 15 Reserve Battalions.

ii. Infantry Reserve Brigade Headquarters.

January 1, 1917 ... 12 Brigade Headquarters. January 15, 1917 ... 6 Brigade Headquarters. January 15, 1918 ... 4 Brigade Headquarters.

June 1, 1918 . . . All Brigade Headquarters disbanded.

iii. Infantry Regimental Depots.

January 15, 1918 . . 12 Infantry Regimental Depots.

June 1, 1918 . . . 11 Infantry Regimental Depots,

now grouped into 3 Group Depots.

(d)—Total Number in each Arm of the Service as at December 31, 1914, 1915, 1916, 1917, and 1918.

Year.	Arm of the		rseas ingland.	Eng	land.	Total.		
2 001.	Service.	Officers.	O. Ranks	Officers.	O. Ranks	Officers.	O. Ranks	
1914	Total	93	1,049	1,401	28,841	1,494	29,890	
1915	Infantry		33,702		25,990		59,692	
	Artillery	Manage	5,272		3,520	_	8,792	
	Cavalry	Balliness .	733	_	1,751		2,484	
	Engineers		1,621	-	1,012	_	2,633	
	C.A.S.C		3,379		1,579	_	4,958	
	C.A.M.C		2,579		2,652	-	5,231	
	Railway	_	444		44		488	
	Forestry		_					
	Other Arms		1,988		785		2,773	
	Total	2,676	49,718	2,275	37,333	4,951	87,051	
1916	Infantry	2,734	65,940	3,564	89,879	6,298	155,819	
	Artillery	547	14,830	475	10,385	1,022	25,215	
	Cavalry	138	2,900	124	2,040	262	4,940	
	Engineers	166	3,301	223	3,380	389	6,681	
	C.A.S.C	203	5,608	150	3,918	353	9,526	
	C.A.M.C	439	5,254	1,258	4,534	1,697	9,788	
	Railway	45	1,515	54	111	99	1,626	
	Forestry	14	214	93	4,646	107	4,860	
	Other Arms	166	4,689	1,845	4,350	2,011	9,039	
	Total	4,452	104,251	7,786	123,243	12,238	227,494	
1917	Infantry	2,625	63,187	3,360	59,069	5,985	122,256	
	Artillery	665	17,546	326	6,335	991	23,881	
	Cavalry	120	2,597	82	1,047	202	3,644	
	Engineers	307	7,247	209	4,291	516	11,538	
	C.A.S.C	181	5,187	193	4,455	374	9,642	
	C.A M.C	423	5,085	1,576	7,198	1,999	12,253	
	Railway	426	13,952	88	2,369	• 514	16,321	
	Forestry	335	9,099	308	7,914	643	17,013	
	Other Arms	1,056	10,672	746	10,651	1,802	21,323	
	Total	6,138	134,542	6,888	103,329	13,026	237,871	
1918	Infantry	2,008	49,820	2,767	54,636	4,775	104,456	
	Artillery	769	18,214	345	6,327	1,114	25,541	
	Cavalry	148	2,684	61	1,565	209	4,249	
	Engineers	702	16,331	468	6,986	1,170	23,317	
	C.A.S.C	218	5,672	100	2,915	318	8,587	
	C.A.M.C	612	5,955	1,762	6,287	2,374	12,242	
	Railway	545	12,789	88	1,474	633	14,263	
	Forestry	379	11,131	314	9,689	693	20,820	
	Other Arms	1,264	15,798	1,095	8,497	2,359	24,295	
	Total	6,645	138,394	7,000	98,376	13,645	236,770	

TABLE II.—CASUALTIES.

Total Number of Casualties during the Years 1914, 1915, 1916, 1917, and 1918.

Wounded.	Other Kanks.	-	8,597	37,927	49,326	47,515	143,365
Wou	Officers.		367	1,583	2,015	2,379	6,344
PRISONERS OF WAR.	Other Ranks.		1,271	962	296	126	2,688
PRISONER	Officers.		39	39	42	10	130
Missing.	Other Ranks.		1,030	2,059	3,220	1,458	7,767
Miss	Officers.		21	64	139	128	352
DIED-OTHER CAUSES.	Other Ranks.	20	258	555	947	2,016	3,796
DIED-OTE	Officers.		14	20	6	161	234
KILLED IN ACTION AND DIED OF WOUNDS.	Other Ranks.		2,832	12,138	19,021	14,342	48,333
KILLED IN A	Officers.	3	142	594	926	871	2,536
		•	•	•	:	•	
Year.		1914	5161	9161	7161	8161	Total

Of the above missing 305 officers and 7,100 other ranks were accounted for up to December 31, 1918, leaving 47 officers and 667 other ranks missing on that date.

TABLE III.—REINFORCEMENTS.

(a)—Percentage of Reinforcements Required to Replace Monthly Wastage.

The supply of reinforcements necessary to maintain the Forces in the Field up to war strength is based on the statistics of wastage per month for each arm of the Service.

This wastage from all causes has been found to be as follows

				Wast	tage per	r month.
					Per	Cent.
Infantry						10
C 1						5
Artillery (Field an	d Hors	se)				$3\frac{1}{2}$
Artillery (Siege an	d Hear	vy Bat	teries)			3
Machine Gunners						10
Engineers						4
Signallers						4
Cyclists						5
C.A.S.C.						3
C.A.M.C.						3
Veterinary Corps						2
Railway Troops (iction)				3
Railway Troops (3
Labour Group and			orks Co	mpany		3
Forestry Corps				••		2

(b)—Distribution of Reinforcing Units at Date of Armistice.

The following schedule gives in detail the distribution of the Canadian Troops in England at the date of the signing of the Armistice on November 11, 1918, and presents a fair idea of the average of distribution of the various Reserve Units of the different Arms of the Service during the later stages of training.

Against each Reserve Unit in the Schedule are placed the names of the Units in the Field they reinforced.

Seaford. (British Columbia Regiment) Infantry (Reserve Unit), 1st Reserve Battalion reinforcing:—
Infantry (Reserve Unit), 1st Reserve Battalion/reinforcing:—
7th, 29th, and 72nd Infantry Battalions.
11th Reserve Battalion (reinforcing: (Manifob a Regiment)
16th 97th and Agad Infantus Rattalions
18th Reserve Battalion reinforcing:— (Manitoba Regiment) 8th, 78th, and 52nd Infantry Battalions.

Engineers (Reserve Unit), Permanent Canadian Engineers Training Centre and Canadian School of Military Engineering, reinforcing:—

Headquarters, 1st, 2nd, 3rd, and 4th Brigade Canadian Engineers; 1st Reserve Battalion (mounted), reinforcing 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, and 9th C.E.; 2nd Reserve Battalion (dismounted) reinforcing 10th, 11th, and 12th Battalions, C.E.; 3rd Reserve Battalion (dismounted), reinforcing 1st, 2nd, 3rd, and 4th Pontoon Bridging Transport Unit, C.E.

Canadian School of Signalling, reinforcing: --

1st, 2nd, 3rd, 4th, and 5th Army Troops Company, C.E.; 3rd Tunnelling Company, C.E.; No. 2 Construction Company (coloured), C.E.; Canadian Permanent Base Engineer Units; Canadian Corps Survey Section, C.E.; Anti-Aircraft Searchlight Company, C.E.; 1st Tramway Company, C.E.; 2nd Tramway Company, C.E.; Reinforcing Pool, C.E. Headquarters; Canadian Corps Signal Company; 1st, 2nd, 3rd, and 4th Divisional Signal Companies; 5th Divisional Signal Company (Artillery Detachment); Canadian Cavalry Brigade Signal Troops; Canadian Signal Pool.

- Canadian Machine Gun Depot (Reserve Unit), reinforcing:—
 1st and 2nd Canadian Motor Machine Gun Brigades.
- Canadian Machine Gun School (Reserve Unit), reinforcing:—
 1st, 2nd, 3rd, and 4th Battalions Canadian Machine Gun
 Corps; Canadian Cavalry Brigade Machine Gun
 Squadron; Reinforcing Pool.
- Canadian Reserve Cyclist Company, reinforcing:— Canadian Corps Cyclist Battalion.

Witley.

3rd Reserve Battalion (1st Central Ontario Regiment), reinforcing:—

4th and 19th Battalions and 2nd and 4th C.M.R.'s.

4th Reserve Battalion (Western Ontario Regiment), reinforcing:—

1st, 18th, and 47th Battalions.

6th Reserve Battalion (Western Ontario Regiment), rein forcing:

2nd, 21st, 38th Battalions and P.P.C.L.I.

8th Reserve Battalion (2nd Central Ontario Regiment), reinforcing:—

54th, 58th, 102nd, and 116th Battalions.

12th Reserve Battalion (1st Central Ontario Regiment), reinforcing:—

3rd, 15th, 20th, and 75th Battalions.

13th Reserve Battalion (New Brunswick Regiment), reinforcing:—

26th and 44th Battalions.

Bramshott.

- 10th Reserve Battalion (Quebec Regiment), reinforcing:—22nd Battalion.
- 20th Reserve Battalion (Quebec Regiment), reinforcing:—13th and 42nd Royal Highlanders, Canada.
- **23rd Reserve Battalion** (**Quebec Regiment**), reinforcing:—14th, 24th, and 87th Battalions and 5th C.M.R.'s.
- 15th Reserve Battalion (Saskatchewan Regiment), reinforcing:—

5th, 28th, and 46th Battalions and 1st C.M.R.'s.

- 21st Reserve Battalion (Alta. Regiment), reinforcing:— 10th, 31st, 49th, and 50th Battalions.
- 17th Reserve Battalion (Nova Scotia Regiment), reinforcing:—

25th and 85th Battalions and Royal Canadian Regiment.

Bordon.

Canadian Reserve Cavalry Regiment, reinforcing:—

Canadian Cavalry Brigade (Canadian Light Horse, Royal

Canadian Dragoons, Lord Strathcona's Horse, Fort Garry

Horse, Royal North West Mounted Police Squadron).

Canadian Reserve Artillery (comprising Reserve Brigade and Composite Brigade and Canadian School of Gunnery), reinforcing:—

1st Canadian Division—1st Brigade Canadian Field Artillery (1st, 2nd, 3rd, and 4th Howitzer Batteries); 2nd Brigade Canadian Reserve Artillery (5th, 6th, 7th, and 48th Howitzer Batteries).

2nd Canadian Division—5th Brigade Canadian Field Artillery (17th, 18th, 20th, and 23rd Howitzer Batteries): 6th Brigade Canadian Field Artillery (15th, 16th, 25th, and 22nd Howitzer Batteries). 3rd Canadian Division—9th Brigade Canadian Field Artillery (31st, 33rd, 45th, and 36th Howitzer Batteries); 10th Brigade Canadian Field Artillery (38th, 39th, 40th, and 35th Howitzer Batteries).

4th Canadian Division—3rd Brigade Canadian Field Artillery (10th, 11th, 12th, and 9th Howitzer Batteries); 4th Brigade Canadian Field Artillery (13th, 19th, 27th, and 21st Howitzer Batteries).

5th Canadian Division—13th Brigade Canadian Field Artillery (52nd, 53rd, 55th, and 51st Howitzer Batteries); 14th Brigade Canadian Field Artillery (60th, 61st, 65th, and 58th Howitzer Batteries).

Royal Canadian Horse Artillery—Headquarters 1st Brigade Canadian Garrison Artillery (1st, 3rd, 7th, and 9th Siege Batteries); Headquarters 2nd Brigade Canadian Garrison Artillery (2nd, 4th, 5th and 6th Siege Batteries); Headquarters 3rd Brigade Canadian Garrison Artillery (8th, 10th, 11th, and 12th Siege Batteries).

Trench Mortar Batteries—1st, 2nd, 3rd, 4th, and 5th Divisional Trench Mortar Groups.

Anti-Aircraft—Canadian Anti-Aircraft "E" Battery.

Purfleet.

Headquarters, Canadian Railway Troops Services (Reserve Unit), reinforcing:—

1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, and 13th Battalions Canadian Railway Troops; 1st Bridging Company Canadian Railway Troops; 85th Engine Crew Company; No. 69, Canadian Wagon Erecting Company.

Canadian Overseas Railway Construction Corps—58th Broad Gauge Railway Operating Company, 13th Light Railway Operating Company.

Sunningdale.

Headquarters, Canadian Forestry Corps and Corps Depot (Reserve Unit), reinforcing:—

Paris Detachment, Canadian Forestry Corps, Head-quarters Central Group. No 1 District Headquarters (No. 1 District Workshop), Companies Nos. 20, 30, 32, 41, 42, 43, 44, and 54. No. 2 District Headquarters (No. 2 District Workshop), Companies Nos. 14, 19, 23, 24, 32, and 34, Headquarters Jura Group. No. 5 District

Headquarters (No. 5 District Workshop), No. 2 Construction Company, Companies Nos. 21, 22, 36, 39, 40, 47, 50, 52, 57, 58, 70. No. 6 District Headquarters, Companies Nos. 28, 51, 56, 69, and 77, Headquarters Bordeaux Group. No. 4 District Headquarters, Companies Nos. 27, 55, 78, 79, and 80. No. 12 District Headquarters (No. 12 District Workshop), Companies Nos. 15, 45, 46, 48, 49, 53, 59, 60, 71, 72, 73, 74. Headquarters Nos. 9 District (No. 9 District Workshop), Companies Nos. 1, 2, 9, 25, 26, 29, 35, and 37, Headquarters Marne Group. No. 10 District Headquarters, Companies Nos. 31, 33, and 70. No. 11 District Headquarters, Nos. 7, 8, 10, 11, 12, 13, and 75 Companies

(c)—Reorganisation of, and Increase in, Existing Units in the Field.

Over and above the provision of new Units for despatch to France it was necessary to provide for the reorganisation of various Units in the Field, and in many cases to furnish increase in the strength.

The following shows reorganisations and increases carried out between January 1, 1918, and November 11, 1918:—

	Off.		O.R.
1. Organisation of two Corps Tramway Companies	6		528
2. Organisation of three Forestry Hospitals	19	• •	62
3. Reorganisation of Canadian Engineers, involving, in addition to absorption, of four Pioneer Battalions, and three Field Companies of 5th Division, an increase of	163		3,822
4. Reorganisation of Machine Gun Companies into Machine Gun Battalions, involving increase of			1,100
5. Formation of one additional Company for each of the four Machine Gun Battalions and necessary increase of Battalion Headquarters	80		1 053
*	00	• •	1,953
6. Organisation Canadian Corps Survey Section	4		162

7. Organisation two Sections Divisional M.T. Company for 5th Canadian	Off.		O.R.
Divisional Artillery	2		78
S. Reorganisation 1st Motor Machine Gun Brigade, and creation of 2nd Motor Machine Gun Brigade, involving, in addition to absorption of three			
Machine Gun Companies of 5th Division, an increase of	7		263
9. Organisation No. 9 Employment Com-			
pany	1		425
10. Organisation H.Q. Corps M.T. Column	4		13
11. Increase of 100 O.R.'s, per Infantry Battalion	_		4,800
12. Organisation Canadian Corps Veterin-			
ary Evacuation Station	1		30
13. Organisation Nos. 1 and 2 Forestry Companies	12	*. *	370
14. Organisation Anti-Aircraft Searchlight			
Company	5		130
15. Organisation Marne Group H.Q., C.F.C.	3		19
	315		13,755
	ENHANCE CO.		TANGENERAL

(d)—Complete New Units Despatched to France.

In addition to General Reinforcements it has been necessary from time to time to organise new Units, and the following schedule gives in detail the strength of complete Units despatched Overseas between January 1, 1918, and November 11, 1918:—

Complete Units Despatched Overseas.	Off.	O.R.	Date of Despatch.		
10th Canadian Siege Battery	6	175	14/3/18		
13th, 14th, and 15th Field Companies	17	614	16/3/18		
H.Q. and Signal Sub-Section 3rd H.A.	17	011	10/0/10		
Brigade	6	45	19/3/18		
17th, 18th, and 19th Machine Gun Com-	0	40	19/3/10		
	30	531	23/3/18		
panies	36	977			
11/1 0 1: 0: 1	6	175	28/3/18		
COUL IV. F. C.	3	269	2/4/18		
Eth Canadian Ainmaft Castian	2	41	9/4/18		
104h Canadian Ciana Dattana	6		6/5/18		
140 0 1: 70:11 4 1 1	12	175	31/5/18		
		233	5/6/18		
5th Canadian Sanitary Section	1	27	5/6/18		
12th and 13th Companies Canadian Forestry		070	07/0/10		
Corps	10	370	27/6/18		
No. 11 District H.Q. Forestry Corps	8	41	4/8/18		
9th, 10th and 11th Companies Canadian					
Forestry Corps	15	555	30/8/18		
Squadron R.N.W.M.P	6	154	6/10/18		
7th and 8th Companies Canadian Forestry					
Corps	8	364	10/10/18		
	172	4,746			
Total increase in existing Units in the					
	315	13,755	;		
Total complete new Units despatched to		,			
	172	4,746	3		
		1,110			
Grand Total	487	18,501			

(e)—Arrivals from Canada and Arrivals From 1/1/1918

Month.		Infantry.			Cavalry. Artille		illery.	Engineers.		M. Gunrs.		C.A.S.C.	
		Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.
January		12	706	_		11	658	6	451	_			
February		65	4527	3	194	21	1326	5	299			2	149
March		71	6453	3	167	7	695	5	488	3	248	5	399
April		82	7849	2	178	18	1574	1	15	1	99	_	
May		39	2643	1	48	3	238	4	337	_			
June		33	3250	16	689	5	423	5	499	-		1	77
July		46	4375	2	205	7	676	119	2897				
August		144	14230	3	296	3	192	38	3241	5	477	3	209
September		57	2398			6	500	4	400		_	1	75
October		11	854					3	293			1	72
November	• •									_			
Total		560	47267	30	1777	81	6282	190	8920	9	824	13	981

Reinforcements From 1/1/1918

Month.		Infantry.		Cavalry.		Art	Artillery.		Engineers.		M. Gunrs.		C.A.S.C.	
		Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	
January		89	1252	1		22	391	22	173	7	65	2	40	
February		152	2713	5	83	20	393	12	173	9	85	9	177	
March		143	10042	5		12	528	8	126	9	479	20	171	
April		327	5664	24	399	61	1151	17	527	34	468	10	180	
May		122	3182	2	21	60	281	4	148	16	20	5	78	
June		251	2712	5	10	39	273	18	821	_	84	9	203	
July		77	484	3	49	10	268	74	187	29	30	14	489	
August		244	8136	2	301	48	889	16	661	28	1293	13	110	
September		519	6815	5	51	65	697	89	1674	31	45	15	90	
October		304	4749	17	204	45	1396	16	714	25	193	12	175	
November		119	3553	15	70	20	21	7	823	76	842	8	2	
Total		2347	49302	84	1188	402	6278	283	6027	264	3604	117	1715	

Reinforcements Despatched to France.

FROM CANADA.

to 11/11/1918.

C.A.M.C.		Tanks,		Railway.		Forestry.		Miscel.		Total.			
Off.	N/S.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	N/S.	O.R.
2 1 	51 16 3 61 32 66 67 	25 179 — 2 70 1 — — 35	92	716	1 7 3 3 5 1 9 12 5 4	49 588 309 300 546 74 902 1260 530 289	15 - 5 8 - - - -	876 — 395 302 — — —	44 73 14 — 12 2 6 26 —	32 25 14 ———————————————————————————————————	91 177 116 118 53 171 227 218 144 159	51 16 3 61 — 32 66 — 67	2797 7287 9150 10319 3882 5743 9057 19905 3918 2509
196	296	312 Enl	136 istmer	1682 its in E	50 Inglar	4847 ad	28	1573	178	138	1475	296	74603 183

1475 296 74786

DESPATCHED TO FRANCE.

to 30/11/1918.

C.A.M.C.		Tanks.		Railway.		Forestry.		Miscel.		Total.			
Off.	N/S.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	O.R.	Off.	N/S.	O.R.
23 22	19	16	-		8	350	3	148	39	815	216	19	3253
	28	131			4	131	5		35	341	273	28	4227
34	36	197			8	503	4	4	44	292	287	36	12342
39	15	181			8	604	3	1	38	214	561	15	9389
23	50	134			3	235	1	225	29	123	265	50	4447
19	17	121			4	400	1	11	28	50	374	17	4685
21	31	50			2	601		8	26	15	256	31	2181
33	42	25				320	5	6	27	164	416	42	11905
47	17	110			7	621	2	15	36	233	816	17	10351
79	54	235			10	778	3	66	65	201	576	54	8701
52	7	30		_	2		1	2	41	54	341	7	5397
392	316	1220			56	4543	28	486	408	2502	4381	316	76875

Grand Total .. 76,557 Grand Total .. 81,572

(642)

(f) Canadian Parties and Special Personnel Loaned to Imperial Authorities.

	Unit.	Off.	O.R.
Mesopotamia	Specially selected Personnel	15	27
Northern Russia—			
(a) Archangel (b) Murmansk	Specially selected Personnel 16th Brigade C.F.A Special Party	5 18 18	11 478 74
Palestine Bridging Party	1st Bridging Company Canadian Railway Troops	6	250
		62	840

QUARTERMASTER-GENERAL'S BRANCH.

INDEX.

		PAGE
Introduction		71
Canadian Army Service Corps		73
Canadian Ordnance Corps		80
(a) Organisation.		
(b) Surplus Stores.		
(c) Ordnance Inspection Department.		
(d) Ross Rifles.		
(e) Artillery Vehicles.		
(f) Fifth Divisional Equipment.		
(g) Hospitals.		
(h) Part Worn Clothing.		
(i) Closing of Ashford Depôt.		
(j) Officers' Repayment Store.		
Quartermaster-General's Inspection Depa	RT-	
MENT		85
Ocean and Rail Transport Department		86
Canadian Postal Corps		87
Canadian Army Veterinary Corps		89
PRINTING, STATIONERY AND TYPEWRITER SERVICE	ES	90
Canadian Salvage Corps		93
Canadian Engineers' Services		94
Quartermaster-General's Board of Officers		95
WAR TROPHIES		96







The Canadian commissariat was a triumph of organisation throughout the war. A Divisional Supply Column loading up rations for the fighting troops.

Quartermaster-General's Branch.

INTRODUCTION.

In order to simplify the consideration of the extensive and complex duties of the Quartermaster-General's Branch as a whole, the activities of the different Departments will be reviewed in detail in the following order:—

Canadian Army Service Corps.
Canadian Ordnance Corps.
Quartermaster-General's Inspection Department.
Ocean and Rail Transport Department.
Canadian Postal Corps.
Canadian Army Veterinary Corps.
Printing, Stationery, and Typewriting Services.
Canadian Salvage Corps.
Canadian Engineer Services.
Ouartermaster-General's Board of Officers.

Every endeavour has also been made in submitting this report to reflect the conditions under which the activities of the Quartermaster-General's Branch have been, and are still, carried on, both in England and in France, and to trace the various steps which have made both for efficiency and economy. It should be realised that for a very considerable period the various Departments of this Branch were required to assume duties and responsibilities entirely outside the scope laid down by the Military Regulations which defined its responsibilities. In the progress of nearly every Department, therefore, it has been necessary, at times, to abandon rigid Military Regulations, not only to overcome problems of an emergency nature but in order to develop methods which seemed best suited to new situations.

War Trophies.

The pursuit of this policy, however, has brought about no conflict with the Imperial Authorities, nor has it in any way jeopardised its harmonious relationships with the various

Departments of the War Office. On the contrary, it has led to a unity of action and produced most beneficial results. For instance, the conditions which prevailed at the time of the arrival of the first Canadian Troops in England rendered the Canadians entirely dependent on the Imperial Forces for supplies, but the system had not really become sufficiently developed to ensure that rapidity of action so necessary in conditions of war.

It therefore became both urgent and necessary that the Overseas Military Forces of Canada should be in a position to make a direct purchase of commodities not readily procurable from the Imperial Army Service. This change entailed a considerable increase both in personnel and in machinery, as, owing to the fact that the Canadians could not command the transport they required, local sources of supply had to be discovered and exploited. In addition, of course, it was necessary to create a proper system of accounting in order that the public funds should be safeguarded, and the Quarter-master-General's Inspection Department was established to ensure a complete check on all stores and ensure the audit of all charges.

In regard to the Canadian Army Service Corps it may be said that its administration has developed with its activities, that it has adapted itself to every changing condition and that under the present Director of Supply and Transport it has reached a pitch of efficiency deserving every credit.

The Canadian Ordnance Corps has also met every need of the Canadian Troops in respect to equipment and stores, and under the present Director of Ordnance Services has reached a high standard of efficiency. One of the most serious problems with which it has had to deal was that of surplus stores. It will be seen from the special section devoted to the Canadian Ordnance Corps that the sum of £1,097,538 8s. 10d., has been reclaimed for the Canadian public funds by the disposal of surplus stores alone; and this amount will be considerably augmented by similar transactions of which details cannot be given at the moment.

Other departmental work of the Quartermaster-General's Branch was invariably carried on with a view to securing the highest possible state of efficiency, and special attention should be drawn to the Ocean and Rail Transport Department, which has had to deal with many difficulties of transportation,

difficulties which were immeasurably increased when the sudden cessation of hostilities produced the new problems associated with Demobilisation.

The economies detailed in respect to the operations of the Stationery, Printing, and Typewriting Services are worthy of attention, and it should be pointed out that these economies were largely made possible by the authority to instal an adequate printing plant, and to increase the Establishment to a strength requisite to the growing needs of the Service.

Very considerable economies have also resulted from the activities of the Salvage Corps. The sales of reclaimed material have amounted to \$190,000.00 during the ten months of the Salvage Corps' activities, while the educational measures adopted to prevent wastefulness have, undoubtedly, proved a valuable asset not only to the Service as a whole, but to the individual soldier.

CANADIAN ARMY SERVICE CORPS.

Responsibilities.—The Canadian Army Service Corps is administered by the Director of Supply and Transport, whose Headquarters are located at Argyll House, London, and whose administration and responsibility covers the operations of the Canadian Army Service Corps both in England and in France. In England the Director of Supply and Transport is directly responsible to the Quartermaster-General for the provision of Supply and Transport and Barrack Services as required by the troops in accordance with Canadian Regulations as they are promulgated from time to time. In England, too, in addition to the general functions of his appointment, the Director of Supply and Transport is responsible for the messing of the troops, the administration of the sale of food supplies to soldiers and their dependants, and the very considerable business connected with the sale of tobacco.

In France, by reason of the Capitation Agreement with the War Office, it is unnecessary for the Canadian Authorities to exercise Accountant Control over the Army Service Corps issues in the Field. In France, therefore, the main duties of the Canadian Army Service Corps centre on the Transport and Supply Service in accordance with Army Regulations and the various other duties laid down by Superior Military Authority.

Operations in the Field.—The operations of the Canadian Army Service Corps in the Field render it necessary to keep in

close and constant touch with all other Branches of the Service. This involves an accurate knowledge of the location of all Units being served, as the supply and delivery of food, forage, and light supplies are its daily responsibilities to all Units. The Army Service Corps Transport must also ensure the Artillery its supply of ammunition, the Ordnance Corps its requirements of equipment and clothing, and the Engineers' Services their supply of material. The evacuation of the sick and wounded, the transfer of baggage, salvage, lumber, and other stores, are also among the many duties of the Transport Service in the Field.

While, therefore, the Canadian Army Service Corps retains its own effective co-ordination as a working Unit it must, necessarily, be attached to each Branch of the Service, and, obviously, its operations require the provision and maintenance of ample transport facilities, while the necessary repairs to hundreds of motor cars, lorries, and vehicles are provided for by the Establishment of Mobile Workshops, where wastage is reduced to a minimum by the practical work of its Mechanical Sections.

Feeding the Troops in England.—The Canadian Army Service Corps obtains supplies from the Imperial Supply Depôts and from the Army and Navy Canteen Board, and these are drawn on a daily ration basis in order to avoid all possible waste.

The feeding of the Canadian Troops on a scientific basis has received close and special attention, and every effort has been made to secure the best results both dietetically and economically. An Inspector of Catering, who is a Dietetic Expert, was employed to decide the caloric value of various foods and the proper manner in which they should be alternated. A School of Cookery was established for the systematic training of men in the arts of the cooking best suited to the men's needs both in England and in France. In the preparation of Diet Sheets, too, technical knowledge has been used in the preparation of special dishes, the nutritive qualities of which a careful analysis has been made and scheduled. In other ways the range of diet provided for under ordinary Military Regulations has been very considerably extended. The diet of the Canadian Troops, for instance, has been supplemented by frozen fish imported direct from Canada, and of this three meals are provided weekly. In fact, every possible endeavour has been made to ensure that a sufficient quantity, variety, and food value are to be found

CANADIAN DIET WAS THE BEST IN ANY ARMY.



The greatest care was taken in the preparation of the food for the Canadian Troops. This is a typical cookhouse, that of the 18th Reserve Battalion at Shorncliffe.



in every meal, and the system of inspection employed is a further guarantee that the system is satisfactorily carried out.

The economic advantage resulting from the employment of these scientific methods is also notable. The preparation of the Diet Sheets in advance furnishes a basis on which exact calculations can be made of all food required for immediate use and in some cases for future use. In this way it is possible not only to forestall emergency prices being charged in the markets, but it has also been possible to establish a basis of claim for the refund of duty on dutiable supplies as they are called for from time to time. By reason of this attention to diet cost and the close scrutiny exercised over the value of the different foods used, the average daily cost of the ration issued to Canadian Troops in England during the year 1917 was 14.142d., and during 1918 14.9207d. These figures do not take into consideration the value of the duty refunded on dutiable commodities, or the amount realised by the sale of by-products

Transport.—Efficiency of transport has rightly been regarded as one of the most necessary requirements of the Service, and the following details of the Transport Establishments in France and in England are of interest:—

In France the Establishment has been based on the Imperial scale and consisted mainly of :—

- 4 Divisional Trains (Horse Transport).
- 2 Army Auxiliary Horse Transport Companies.
- 4 Divisional Mechanical Transport Companies.
- 1 Corps Troops Mechanical Transport Company.
- 1 Company 5th Divisional Train.
- 5th Divisional Artillery Mechanical Transport Detachment.
- 1 Canadian Army Service Corps Engineer Mechanical Transport Company.
- 1 Motor Machine Gun Mechanical Transport Company.

In England, where up to the time of Demobilisation troops were more or less stationary, the scale was naturally not so high, although on an average there were about 122,000 troops to be served. The original horse transport of the Units in England was abandoned in 1916, when the whole service was undertaken by the Canadian Army Service Corps, which, though from that date it had to serve a steadily increasing

number of troops, has by means of careful organisation and strict economy, contrived to afford an efficient service with transport equipment facilities, which have gradually been reduced.

Barrack Services.—These are divided into two distinct divisions as follows:—

- (a) Barrack Equipment;
- (b) Barrack Consumable Stores.

Barrack equipment is issued by the Imperial Authorities, and of this strict account is kept.

Consumable barrack stores are the charge of the Canadian Army Service Corps, which issues them and accounts for them as regular or emergency demands dictate.

In respect to this latter service it was found that greater efficiency and economy could be effected by the modification of the regular Army scales and system to modern and practical business methods. The Imperial scale of issues was adopted as far as practicable, though for certain buildings, used as Hospitals and not originally designed for the purpose, special allowances are authorised.

Repayment Issues.—In the spring of 1916 a system of issues on repayment to the Canadian Troops and their dependants was inaugurated at Shorncliffe.

This system was gradually extended to all other areas in order to provide whatever was urgently required and to assure the definite supply of necessaries at the least possible cost. Food commodities were sold on the War Office Authorised Scale to soldiers living out of barracks, and sales were made to dependants on the basis authorised by the Board of Food Control.

In all cases sales were conducted on a cash basis, the local representative of the Paymaster-General being responsible to the Pay Office, and the General-Auditor being subsequently responsible for the audit of all accounts.

In the autumn of 1917, this system was extended to include the sale of tobacco, cigars, and cigarettes. This step was not only rendered necessary by the growing shortage of local supplies, but was also desirable and advantageous to Canada, inasmuch as it provided a market for Canadian manufactured goods. It further conferred a boon on the Canadian soldier because not only was he enabled to purchase the brands of tobacco and cigarettes he preferred, but he was also enabled to effect personal economy because, after somewhat difficult negotiations, the Imperial Authorities finally consented to permit tobacco supplies for the use of the Canadian Troops to enter Britain duty free.

The appreciation of the Canadian soldier of this measure may be gathered from the fact that from the commencement of these sales up to December 31, 1918, the value of these goods sold for cash amounted to £171,635 12s. 3\frac{3}{4}d. Further, as a reduction of from 50 per cent. to 75 per cent. was effected in the cost of the various brands of tobacco as compared with the prices which would have had to be paid for similar goods purchased locally, a total of \$787,000 was saved to the Canadian Troops in England during the period specified. It must also be remembered that by this means four-fifths of the total trade in these commodities was transferred to Canadian manufacturers.

Personnel.—The providing and maintaining of trained personnel capable of rendering efficient service in every Branch, whether it is isolated or in touch with Supply Centres, are also part of the Canadian Army Service Corps' duties in the field, and this, to ensure capable and efficient service, entails not only the careful selection but the thorough training of picked personnel.

In addition to the training of personnel for France the Canadian Army Service Corps is also responsible for providing the efficient personnel required for Supply Transport and Barrack Services in England.

The strength of the Canadian Army Service Corps is approximately 9,500 of all ranks, including a percentage of casualties and "learners" employed in subsidiary Departments.

Personnel was supplied to the Canadian Formations in France in accordance with Authorised Establishments and in conformity with the physical standard fixed by the Imperial Authorities.

In addition, an approved number of officers and Other Ranks were detailed to the Lines of Communication, thereby coming under the Imperial Authorities for duty and discipline. There was also maintained in France a small Pool from which all Branches of the Canadian Army Service Corps is furnished with reinforcements or men required to take the place of casualties.

Reinforcements to the Canadian Army Service Corps itself have been obtained latterly from three sources—the Allocation Board in England, other Branches of the Service, and from other Units in France.

Details as to the numbers employed according to classification in December, 1918, are as follows:—

, ,		Other
	Officers.	Ranks.
With Canadian Corps and Cavalry	158	 5,107
On Lines of Communication	24	 1,065
Remainder in Pool	46	 1,301

The personnel of the Horse Transport in France are all "A" Category men owing to the severe character of their duty, but as far as possible "B" men are employed in the Mechanical Transport, at the Base, and on the Lines of Communication. Surplus "A" men have been systematically drafted into Infantry Battalions and other Units.

The administration of the Canadian Army Service Corps personnel, which formerly was subdivided, came under the entire control of the Director of Supply and Transport in 1917, and a complete co-ordination of interests at once took place between the personnel in France and England.

The officers of all Units of the Canadian Army Service Corps were thus placed on one Seniority Roll and on an equal footing for appointments or promotion.

The following table will show the relation in numbers of the Canadian Army Service Corps to the total force of Canadian personnel with the Overseas Military Forces of Canada. These figures do not include personnel "on command" from the "Pool."

Date.		Troops in England.	C.A.S.C. in Troops England. France		1		.S.C. in	
		Off. O.R.	Off.	O. R.	Off.	O. R.	Off.	O. R.
June, 1915		1,981 38,139			1,203	20,490		
Dec., 1915		2,275 49,948	91	1,539	2,329	49,025	105	3,150
June, 1916		4,501 74,166	191	3,243	3,211	68,487	135	4,750
Dec., 1916		7,786 123,243	171	4,026	4,870	103,659	183	5,325
June, 1917		7,653 119,013	187	4,881	5,333	128,738	196	5,558
Dec., 1917		7,082 99,756	179	4,480	6,614	136,388	187	5,364
June, 1918		6,102 96,281	156	3,824	7,330	155,075	196	5,391
Nov., 1918	• •	6,748 122,260	133	3,142	6,640	142,898	222	5,910

Of the Canadian Army Service Corps in England during the month of December, 1917, 37 officers and 967 other ranks had become ineffectives; in June, 1918, 42 officers and 1,079 other ranks were ineffectives, and in November, 1918, 21 officers and 1,033 other ranks were also ineffectives, which, with 15 officers and 399 other ranks in training, left 97 officers and 1,711 other ranks to perform the Canadian Army Service Corps' duties in England.

Training of Personnel.—There was established at Shorncliffe a Canadian Army Service Corps Training Depôt, the purpose of which was to fit Army Service personnel for service in the field. The officers, who were drawn from France, were selected on account of their experience and capacities. It had been found that the system of training in the Canadian Army Service Corps, both in regard to Horse Transport and Supply and Mechanical Transport, differed from that of England and France, and the Depôt therefore drew up a syllabus and put into practical operation the training necessary to standardise Canadian Army Service Corps' work at the Front.

The training of the Horse Transport and Supply included riding, driving, drill, guards, musketry, gas, physical training, marching, march discipline, sick lines, map reading, field kitchens, sanitation duties, discipline, billets, encampments, supply in the field, care of supplies, care of horses, harness wagons, equipment, Quartermaster's work, barrack regulations, pack transport, shoeing, movements by rail, care of bicycles, the mule, administration.

The Mechanical Transport Section were trained in all branches of the care and handling of motor vehicles of all grades, shop repair work, etc. This course was followed by a study of much of the training syllabus laid down for Horse Transport and Supply.

The cadre of Horse Transport and Supply consisted of five officers, 15 sergeant-instructors, and 14 other ranks. The Mechanical Transport cadre consisted of two officers, 16 instructors, and four other ranks.

There were about 300 Other Ranks in constant training in each section, making possible a reinforcement of 600 men to meet any emergency.

CANADIAN ORDNANCE CORPS.

Organisation.—Ordnance Services are necessary to any military organisation for the purpose of providing all arms of the service with clothing, rifles, equipment, guns and ammunition, and maintaining the supply in accordance with the scales laid down. Ordnance is also responsible for the supply of personnel to maintain the efficiency of this equipment in the Field, and the Ordnance personnel with the Canadian formations in the Field was in accordance with War Establishments laid down for the British Army. For instance, there was an Ordnance Armourer Sergeant with each Battalion, and an Ordnance Armament Artificer with each Artillery Brigade.

All equipment, etc., which becomes unfit for use in the Field is returned to the Ordnance Corps, and, as far as possible, repaired and again made serviceable. This necessitated skilled personnel at the Base or with the more advanced workshops, such as the Ordnance Mobile Workshops, which deal with minor and ordinary repairs to guns in the Field.

The personnel of the Ordnance Workshops at the Base consists of armourers, wheelwrights, technical instrument repairers, tailors, shoemakers, carpenters, etc. The Ordnance select these men from other Units and trains them for their special duties.

The Canadian Ordnance Corps, Overseas Military Forces of Canada, was inaugurated in the autumn of 1914, and then consisted of two officers and 30 other ranks of the Permanent Corps, who were despatched from Canada with the first Canadian Contingent, for the purpose of looking after the ordnance requirements of that Contingent, and its first operations were at Salisbury Plain. On the departure of the 1st Division for France in January, 1915, Ashford (Kent) was selected as the Canadian Ordnance Base, for the reason that the Canadian troops at that time were concentrated in the Shorncliffe area and Ashford was the nearest place offering the necessary facilities.

With the increase in the numbers of the Canadian troops in England, the Ordnance Corps grew until, in August, 1917, it consisted of 25 officers and 1,291 Other Ranks. This, the maximum strength at any time, was subsequently reduced. On December 31, 1918, it totalled 20 officers and 642 Other Ranks.

On the Canadian troops taking over the Bramshott and Witley areas, it became necessary to open a second Ordnance Depôt at Liphook to provide for the requirements of these two camps.

Under the system pertaining at that time, Units indented for stores direct on the Canadian Ordnance Depôts either at Ashford or Liphook, which resulted in most cases in the accumulation of very large reserve stocks within the Unit. This continued until April, 1917, when it was decided to open a small Ordnance Depôt to handle clothing, equipment and regimental necessaries in each area, and to withdraw the excessive stocks from individual Units. The advantages derived from this were:—

- 1. The carrying of large stocks by individual Units was eliminated, thereby preventing the accumulation of dead stock.
- 2. Difficulties hitherto experienced in equipping drafts for overseas at short notice were obviated.
- 3. The financial responsibility of Officers Commanding Units was considerably reduced.
- 4. Wastage in Units was controlled by the presence of an Ordnance Officer in the area.

Ordnance Inspection Department.—Numerous difficulties arose and considerable wastage was apparent as the result of lack of knowledge on the part of quartermasters of proper accounting, chiefly due to the fact that they had never had any proper military education or instruction in their duties. To overcome this state of affairs and establish a uniform system, the Ordnance Inspection Department was organised to keep a close supervision on all indents and quartermasters' accounts.

In the first year of the activities of this Department, economies were effected to the extent of a reduction of approximately 60 per cent. on the issue of Ordnance to Units. Subsequently this Department was extended to cover all the services of the Quartermaster-General's Branch, including supplies and mechanical transport, and is now known as the Quartermaster-General's Inspection Department. A separate report on the work of this Department is given later.

Surplus Stores.—For urgent reasons contingent on the speedy fitting out of troops for the Field it became necessary from time to time to draw equipment from the Imperial Authorities. These measures of Military expediency unavoidably resulted in the accumulation of stores of Canadian origin at the Ashford Depôt. This accumulation was also in part the result of an agreement entered into between the Canadian and Imperial Governments whereby the Imperial Government became solely responsible for providing accommodation and equipment for the Canadian Hospitals and all Canadian Troops in England. The surplus of stores was also added to by a further arrangement whereby the Imperial Government agreed to maintain the clothing and equipment of the Canadian personnel in France at a per capita rate.

It was, therefore, recommended by the Quartermaster-General's Branch and approved by the Minister that all surplus equipment should be disposed of to the Imperial and Allied Forces, especially having regard to the fact that none of the surplus stores could be disposed of in Canada.

5th Divisional Equipment.—On the demobilisation of the 5th Canadian Division, negotiations were entered into with the Imperial Authorities with a view to their purchasing the vehicles and other mobilisation stores with which the Division had been equipped. At the outset the Imperial Authorities offered 95 per cent. of the cost price of Machine Guns and 75 per cent. of the cost price of other stores. This was not considered acceptable. and therefore it was arranged that the articles in question should be taken over at a price to be assessed according to the condition they were in. An Inspection was then carried out by the Chief Ordnance Officer and a Representative of the Army Ordnance Department, with the result that upwards of 50 per cent. of the articles were taken over at their full value, while the remainder were assessed at three-quarter value, with the exception of a very small percentage which were in bad condition and for which only a proportionate price was obtainable.

In view of the fact that these stores had been in use for training purposes in the 5th Division for over 12 months the terms obtained were considered most advantageous, particularly having regard to the fact that the stores were only useful for military purposes and

of no general commercial value.

Hospitals.—Under the financial agreement between the Canadian and Imperial Authorities, the Imperial Authorities were responsible for the supply of Hospital accommodation for Canadian

troops in England. This led to considerable difficulty as some hospitals had been taken over by the Canadian Authorities before the agreement was arrived at. These matters, however, have now all been settled by a claim being put in against the Imperial Authorities for the value of the stores issued by the Canadian Authorities to these Hospitals.

This refers to all Hospitals in England, with the exception of the Park Prewett Hospital at Basingstoke, which was taken over from the Imperials on March 17, 1917, on the authority of the Acting Minister at that time. It was equipped and is still maintained at Canadian expense.

Part Worn Clothing.—The Imperial Government laid down the policy that all part-worn woollen clothing should be turned into the Imperial Salvage Department, for the purpose of being again used by the Army instead of being sold to contractors and dealers as had hitherto been the case. While the disposal of part-worn clothing to contractors brought a larger financial return, it was, on the other hand, quite clear that the wool was being used for unauthorised purposes, and as the requirements of the Army as a whole were an Imperial necessity, the following agreement was entered into with the War Office:—

- 1. The conditioning of clothing returned from troops to be carried out by the Canadian Ordnance and divided into (a) Unserviceable; (b) Fit for further use after cleaning and repair.
- 2. The following ration prices to be allowed: Jackets, 74s.; Trousers, 84s.; Greatcoats, 60s.; Pantaloons, 66s.; Puttees, 70s.; Shirts (woollen), 60s.; Shirts (flannel), 60s.; Drawers (woollen), 60s.; Socks (mixed), 100s.; Socks (G.S.), 120s.; Socks (steel), 100s.; Cardigans, 120s.; per cwt.
- 3. 40 per cent. of the full value (Dominion Vocabulary Rates) to be allowed for articles fit for further wear.
- 4. No deductions to be made for working purposes and no charges for railage.

During the year, 1918, £52,025 3s. 2d. has been realised from sales of part-worn clothing.

Closing of the Ashford Depôt.—It became latterly increasingly apparent that for various economic reasons the Ashford Depôt should be closed. In August, 1918, therefore, the Minister communicated with the British Secretary of State for War,

pointing out that it was considered there was duplication of effort and a wastage of space by holding clothing and general stores for the Canadian troops in the British Isles separate from those of the Imperial Forces. It was suggested that as the buildings occupied by the Canadian Ordnance Stores at Ashford were provided at Imperial expense that their occupation should be resumed by the Imperial Authorities, and that the stores contained therein be transferred at a valuation to be agreed on. It was further pointed out that as the articles in question were standardised with similar stores of Imperial issue it was not expected that any difficulty would arise in this connection, and further that this arrangement would relieve the transportation situation as the tonnage employed in importing some of the stores from Canada could be diverted to more essential war requirements, such as the conveyance of food. In addition such an arrangement would enable the Canadian Military Organisation to release 500 or 600 men to the Fighting Forces.

The Imperial Authorities finally agreed to the proposal as outlined by the Minister, and the economic advantage may be appreciated when it is realised that the transaction involved several millions of dollars in relation to stores which were only useful for war purposes and had little commercial value. This advantage was emphasised by the abrupt cessation of hostilities, as the Imperial Authorities are taking over the major portion of the stores, thus saving the Canadian Government the expense which would otherwise have been involved in re-shipping them and finding them accommodation in Canada. Any Stores which could not be taken over by the Imperial Government have been disposed of in the open market by Auction Sale under the direction of the Disposal Board, whose operations are dealt with under a separate section.

Officers' Repayment Store.—Owing to the continuous increase in the price of officers' clothing and equipment, an application was made to the Minister for permission to open an Officers' Repayment Clothing Store for the purpose of supplying officers' requirements. Approval was given for an advance of £5,000 from public funds for the purpose of securing the necessary stock, and it was agreed that officers should be charged 5 per cent. over cost price on all purchases.

The Repayment Store was opened on May 22, 1918, and the following statement of sales is ample testimony of the success of the enterprise and the extent to which it has benefited Canadian officers and cadets both in England and in France. The only difficulty has been to obtain sufficient stock to meet the demand.

Statement of Sales

				£	S.	d.
May				248	6	9
June				1,878	19	()
July				3,050	8	9
August				6,262	4	.3
September	1.	• •		11,468	18	11
October	4. *			12,447	8	9
November	• 4			7,974	8	11
December				11,801	1	10
Total			• •	£55,131	17	2

QUARTERMASTER-GENERAL'S INSPECTION DEPARTMENT.

The inauguration of this Department is referred to in that part of the Report on the Quartermaster-General's Branch which deals with the Canadian Ordnance Corps, as the Department was formed primarily to look after Ordnance Services.

In view of the satisfactory results achieved its operations were extended in May, 1918, to cover all departments of the Quartermaster-General's Branch, and its administration was accordingly transferred from the Canadian Ordnance Corps to the Quartermaster-General.

Previous to this time, Canadian Army Service Corps matters were taken care of by an Investigation Department, and other Branches of the Service conducted their own internal checks.

The authorised establishment of the Quartermaster General's Inspection Department allows for 15 officers, 58 other ranks, and two civilian stenographers, but the work has been carried on, so far, by 12 officers, one stenographer, and the full complement of other ranks. With the consolidation of inspectional work and stores audits under one head, a saving of personnel was effected almost equal to the entire establishment of this Department, a total of 14 officers, 53 other ranks, and two civilians being released.

Apart from this reduction of personnel, the advantages of having a uniform system of accounting for all services controlled by one head, soon became apparent; and the difficulties which had formerly arisen through conflict of orders were overcome.

The principal duties carried out by this Department are as follows:—

- 1. Periodical stocking and stores audit of all Ordnance and Mechanical Transport Stores, Supplies, Barrack Equipment, etc., held by Units and Depôts, Hospitals, and Hospital Ships.
- 2. Final audits and closing out of stores accounts of Units on absorption or depletion.
- 3. Checking up of stores on transfers of Commands.
- 4. Checking of all indents from Units, and investigation into and recommendations regarding any stores demanded over authorised scale.
- 5. Adjustment of any irregularities in connection with issues, consumption, misappropriation of ordnance and other stores.
- 6. Boards of Survey on and final recommendations as to disposal of accumulations of unserviceable stores.
- 7. Inspection of equipment; all drafts arriving from Canada, completion of their equipment to scale; and preparation of Clothing Form D.O.S.2 for each man.

The results of the work of this Department have been most gratifying, and have been fully appreciated by Unit Commanders as a great protection to them as well as to the Canadian public.

OCEAN AND RAIL TRANSPORT DEPARTMENT.

The officer in charge of Ocean and Rail Transport is responsible to the Quartermaster-General:—

- 1. For the procuring of proper and suitable ships for the transportation of Canadian personnel and their dependants from England to Canada.
- 2. For the shipment of Canadian Government Stores and material from England to Canada.
- 3. For the clearance of all such stores received from Canada.
- 4. For Rail Transport in the British Isles of all Canadian personnel and freight.

Prior to the creation of this Department all embarkation responsibilities had come under the Adjutant-General's Branch. The change was made for the reason that transportation

is essentially a function of the Quartermaster-General, and the consolidation of this work under one head allowed of a considerable reduction in the staff of the Adjutant-General's Branch.

All shipping is under the direct control of the Ministry of Shipping Department of the Imperial Government, and all Military Railways in the British Isles are under the control of the Director-General of Movements at the War Office. It was therefore obvious that there should be the closest co-operation between the Canadian Ocean and Rail Transport Department and the two Imperial Departments above named, and since the creation of the Ocean and Rail Transport Department, relations with the corresponding British Departments have been most satisfactory and beneficial.

Ocean transportation has been most difficult to handle owing to submarine warfare, strikes, shortage of labour, and various other conditions contingent on times of war. During the year 1918, 4,245 officers and 47,927 other ranks were returned to Canada, as well as 13,306 civilians, all of whom arrived safely at their destination, with the exception of those involved in the loss of the hospital ship "Llandovery Castle," which is dealt with under the Section devoted to the Canadian Army Medical Service.

Railway Transportation has been a most difficult problem owing to the shortage of rolling stock and labour, and because in addition to the returning of troops who had to be carried to their various points of embarkation, the Department has also had to provide railway transportation for all troops arriving in this country.

The number of railway warrants issued during the year 1918 was 310,795, for the accommodation of 419,390 persons, and covering a mileage of 102,815,532. The approximate amount of freight handled by this Department on the railway during the year was 15,825 tons.

CANADIAN POSTAL CORPS.

The Canadian Postal Corps, Overseas Military Forces of Canada, was organised for the purpose of dealing with all postal arrangements for the Canadian Overseas Military Forces, both in England and in France.

In France the Canadian Postal Units were in accordance with the War Establishment laid down for Postal Services with Units in the Field, while in England the Postal Corps is so organised as to perform the necessary postal duties in an efficient and economical manner, the establishment warring in accordance with the number of troops to be served.

On December 31, 1918, the strength in England was:—Officers, 7; other ranks, 174; and in France—officers, 7; other ranks, 148.

All mails for the Canadian troops in the Field, whether from Canada or other sources, are first handled by the Canadian Postal Corps in London, and eventually placed in bags addressed to the various Units. The Canadian Postal Corps in France thus carried on the work of distribution. In England, a Postal Section is located in each area for the handling of both incoming and outgoing mails.

The Postal Service in France and in England has been most efficient throughout the war, and maintained a full general postal business in the handling of registered letters, ordinary letters and parcels, and the sale of stamps, money orders, etc., as well as the considerable undertaking of the re-directing of mails.

This mail is handled by the Canadian Postal Corps from the time of its receipt in England until it is delivered to the Regimental Mail Orderly of the Unit in the Line.

The following is a short summary of the mail handled by the Canadian Postal Corps during 1918:—

_					Bags.
Letters and New	s Mail	receive	d, all A	reas	102,261
Parcels Mail			• •		351,815
Letters, News ar	nd Par	cels des	patche	i	659,412
Total number of					433,600
Bags average 56 lbs. i	n weig	ght and	represe:	nt the	following -
Letters					68,174,000
Newspapers					10,226,100
Parcels					5,332,670
Registered		* á	4.		433,600
Total it	ems		4 4		85,166,370

CANADIAN ARMY VETERINARY CORPS.

The Canadian Army Veterinary Corps Overseas is reponsible for the supply and maintenance of the veterinary personnel required for the Canadian troops, both in England and in France, as laid down by War Establishments.

The War Establishments of the Canadian Army Veterinary Corps in France now call for 72 officers and 756 other ranks. These officers are responsible for the health and care of the 24,000 horses employed in the various Canadian Units in France, and include the staff of the Veterinary Hospital at the Base, which consists of the nine officers and 467 other ranks needed for the care of upwards of 1,250 sick horses.

In the early days of the Veterinary Services the headquarters of this Corps consisted of a Director General of Veterinary Services and Remounts, with two assistants and a sub-staff of three military clerks and one stenographer.

In England at that time, in addition to the Veterinary personnel required to look after the horses, there were a Veterinary Hospital employing five officers and 154 other ranks, and a Veterinary and Farriers' School employing two officers and 19 other ranks.

In 1918 it was decided to reorganise the Veterinary Services and an officer with overseas experience was brought back from France and appointed Director of Veterinary Services, with a sub-staff of two military clerks.

The Canadian Hospital in England was completely done away with, as was also the School of Farriery, arrangements being made with the Imperial Authorities for all sick animals to be evacuated to Imperial hospitals.

It was further arranged for the British Army Veterinary School to be used for the training of Canadian Veterinary personnel for duty with the Units both in England and in France.

The handling of Remounts by the Canadian Army Veterinary Corps was also done away with, and Remounts drawn direct from the Imperial Authorities as they were required.

These arrangements resulted in greatly reducing the expense of the Canadian Veterinary organisation, while its efficiency was rather enhanced than impaired. The Canadian Army Veterinary Corps has, indeed, successfully carried out all the duties which it has been called upon to perform, and, in proportion to the number of horses, the wastage in the Canadian Corps has been of a considerably less percentage than that in the British Army.

PRINTING, STATIONERY AND TYPEWRITER SERVICES.

When Canadian Troops first arrived in England, Stationery requirements were purchased from manufacturers direct by Units and Departments out of their Imprest Accounts and, even on the formation of a Stationery Purchasing Office, certain commodities of this description were still so obtained.

In November, 1915, however, larger warehousing premises were obtained in London and all standard stationery supplies obtained through the Imperial Authorities at the controlled price, a step which greatly lessened this expenditure. Sub-Stationery Depôts were opened in the Areas as a means of distribution.

The Stationery Supply Depôt came under the administration of the Quartermaster-General in August, 1916, when the whole of the methods of the operations of this section were investigated and new systems put into force, with a view to keeping a close check on all purchases and supplies and reducing expenditure on stationery requisites to a minimum.

In October, 1917, the Typewriter Inspection Branch, which had been in existence since October, 1916, under the administration of the Director of Recruiting and Organisation, was amalgamated with the Stationery Services, and the redistribution of work permitted of a reduction in strength of these two Departments of one officer and seven other ranks.

In view of the large volume of printing which had to be placed with private firms, the delay in securing deliveries and the heavy and ever-increasing cost of this work, a recommendation was made by the officer in charge of the Stationery and Typewriter Services, to instal a printing plant. A small Printing Press, which was formerly used by the Catering Department for the printing of Diet Sheets only, was therefore handed over to the Stationery and Typewriter Services. The machine so acquired could print forms up to a size of $11\frac{1}{2}$ in. by 17 in.

In August, 1918, in order to undertake the printing of Headquarters' Canadian Routine Orders and to cope with all other printing required by the Canadian Overseas Military Forces, a double demy Printing Press and Power Paper Cutting Machine were installed at a cost of £420. This expenditure was amply justified as the saving on the printing of Headquarters Canadian Routine Orders alone amounted to over £2,600 a year

The following statement shows the present printing press, together with the number of forms printed and staff employed:—

Plant.	Forms.	Staff.
4 Multigraph Machines and 2 Type-		
setters (Jan. to Dec., 1918)	40,317,564	5 men
1 Small Haddon Safety Press	3,765,465	1 man.
1 Double Demy Bremner Printing		
Press (Aug. to Dec., 1918)	2,534,472	1 girl, 1 man.
1 Ruling Machine (Feb. to Dec.)	1,447,120	1 man, 1 girl.
1 Greig Power Paper Cutter		1 man.
1 Wire Stitching Machine		2 girls.
1 Multiple Punching Machine		2 girls.
1 Perforating Machine	Material Control of the Control of t	2 girls.
Jogging, Collating, Padding, etc		2 girls.
Complete Compositors' equipment		2 men
	48,064,621	17 men, 4 girls

Prior to the installation of a printing plant in London, and as a result of the large quantities of stationery, etc., drawn from the Imperial Authorities, an arrangement was arrived at with the War Office in 1915 for this business to be dealt with on a per capita basis of 1s. 6d. per man per quarter. Owing, however, to the subsequent higher cost of material and production, the amount had to be increased to 1s. 9d. in 1916, and 2s. in 1917. In 1918 the War Office submitted a claim based on the foregoing scales, the claim covering the period from October, 1914, to March, 1917, and amounting to \$269,980.00. It was then pointed out to the War Office that a number of Imperial Army Books and Forms were not suited to Canadian uses, and as the War Office figures were based on a supply of all forms, application was made for a rebate of 50 per cent. This was eventually agreed to, and the War Office claim was finally passed for \$134,999.00. Following this, arrangements were made whereby, commencing January, 1918, monthly accounts should be rendered for supplies so obtained.

The saving effected by the installation of this printing plant is very apparent. During 1917 disbursements to Contractors for printing, etc., amounted to £18,322 8s. 7d., whereas, during 1918 only necessary items such as rubber stamps, cheques, pay books, stereos, etc., were obtained on the open market, at the cost of £6,158 19s. 2d.—a difference of £12,163 9s. 5d. in one yearnotwithstanding the fact that the quantity of printing required

during 1918 was 50 per cent. over that supplied during 1917, and that printing prices had increased 125 per cent. on the open market over pre-war prices.

In view, too, of the shortage of paper the strictest economy has been necessary and stocks held by Units and Stationery Sub-Depôts were reviewed and surpluses withdrawn. As a result, approximately 30 tons of stationery were returned to the Imperial Authorities and credit obtained therefor. "Dead" correspondence files and obsolete forms were cut to correct dimensions and used for carbon copy work, small forms, etc. Interdepartmental forms were reviewed and standardised to meet all requirements and others eliminated, and "cut-offs" from printing work utilised for scribbling pads, etc. Apart from relieving the stationery situation, it is estimated that these measures effected a saving during the year, 1918, of over £2,000.

The care of and accounting for typewriters form no small part of the work of this Department. There is a staff of skilled typewriter mechanics in London and in each Area, and machines on charge to Units and Departments are inspected monthly. Any necessary small repairs and adjustments are also carried out and machines are withdrawn for thorough overhaul when necessary. In this way the life of the machine is preserved and the maximum efficiency obtained.

On the transfer of the administration of the Printing, Stationery and Typewriter Services to the Quartermaster-General, the whole typewriter situation was carefully gone into, with the result that a large number of machines not in full use by Units and Departments were withdrawn and a general re-distribution made. By this means the following reductions were made possible:—87 Underwoods, on hire at a rental of 12s. 6d. per month, were returned to their owners; 160 typewriters, issued on repayment by the War Office in 1915 and 1916, were remodelled and returned in such good running order that they were taken back without any charge being made for the time they had been in use by the Canadians; and 150 surplus typewriters and 48 duplicators were disposed of on the open market at prices considerably above the original cost to the Canadian public.

At the present moment there are 4,161 typewriters and 173 duplicators on charge in England, and 237 typewriters and 39 duplicators have been issued to Canadian Units in France.

The total personnel of the Printing, Stationery, and Typewriter Services at the end of 1918 was 2 officers and 40 other ranks.

CANADIAN SALVAGE.

On the introduction of the varied ration into Canadian Camps in England, a Canadian Salvage Company was inaugurated for the purpose of handling by-products. It was administered at that time by the Inspector of Army Catering.

Later it became an independent Unit, under the Director of Supplies and Transport, and its scope was extended over the collection, conservation and disposal of all by-products attendant on the Supply and Transport Services.

Finally, owing to economies effected by the successful work of the Salvage Company, its operations were further extended to all Branches of the Quartermaster-General's services, and the administration accordingly transferred to the Quartermaster-General. It then became known as the Salvage Department, Q.M.G., and a Salvage Section was established in each Canadian Area and a Salvage Officer appointed on each Area Headquarters. The personnel employed consisted of fatigue parties drawn daily from the various Regimental Depôts, together with a small permanent fatigue party composed of men with the necessary training to supervise the sorting and grading of the various articles salvaged.

Inasmuch as London offered the best market for the sale of scrap material, a Central Salvage Yard was opened at once in order that articles from the Areas which could not be disposed of advantageously locally could be centralised and disposed of in bulk to the contractors. This Yard is also used for the display of samples and the technical training of salvage personnel.

On September 1, 1918, the Canadian Salvage Department was merged into the Canadian Salvage Corps, with Headquarters in London and a definite establishment in each Canadian Area. This course was necessary in order that the personnel could be permanently employed and initiated fully into their duties. Apart, too, from greatly increasing the efficiency of salvage operations, it allowed of a decrease in the personnel employed. Under the old organisation, in the six Canadian Areas which were then in operation, the average number employed was five officers and 140 other ranks, whereas with the permanent organisation, the same work is carried out in eight Areas with only six officers and 53 other ranks.

Among the various salvaged commodities, for the supervision, collection, conservation, and disposal or storage of which the Canadian Salvage Corps is responsible, can be enumerated

the following:—Fish Barrels and Boxes, Rags, Bandages, Boxes of various descriptions, Bottles, Meat Wrappers, Jars, Tailors' Clippings, Crocks, Horseshoes, Lumber, Lead, Manure, Cupro-Nickel, Paper, Brass, Bakery-Sweepings, Horsehair, Horse Hides, Rubber, Rabbit Skins, Straw, Tea Chests, Hoof Parings, Bones, Corks, Dripping, Cracklings, Rope, Trap Grease, Tin, Ashes, Wax, Sacking, Mechanical Transport Equipment, Swill, etc.

These waste materials are centralised in a Salvage Dump in each Area and carefully sorted and graded in order that the best possible prices may be obtained. A close supervision is kept on Units to prevent any misappropriation of Government equipment and the leaving of surplus equipment in the lines exposed to weather conditions. This results in appreciable saving by the conservation of Army Stores, and the cleanliness of the Camps is thereby enhanced.

In the sorting of the various commodities, the requirements of each Branch of the Service are considered, in order that only such articles should be discarded as Salvage as can be put to no further military use.

During the period January 1 to October 31, 1918, the total proceeds of sales of waste materials amounted to \$190,510.12 (an average of \$19,051.00 per month).

CANADIAN ENGINEERING SERVICES.

The Canadian Engineering Services in England are distinct from the Canadian Engineering Training Depôt, the latter being employed exclusively for the training of engineer reinforcements for France.

The Canadian Engineer Services have no authorised establishment, with the exception of the London Headquarters and permanent staffs in hospitals, all working squads being furnished by Units as required, the majority being borrowed from the Engineer Training Depôt.

Their duties made them responsible for the provision and maintenance of accommodation required by the Canadian troops in England, and is the business of the Officer in Charge of this Department to see that Canadian interests are protected, that buildings are properly maintained and that all regulations concerning the same are complied with.

Accommodation for the Canadian Forces in England is primarily the responsibility of the Imperial Government, but in the early stages of the War certain buildings were so urgently required by the Canadian Authorities that it was necessary to take them over without the delay which must have occurred pending a formal agreement with the British War Office. In 1915, for instance, it had become necessary to take over several hospitals at the expense of the Canadian Government. The actual rental charge of these hospitals to the Canadian funds was, approximately, £7,570 per annum, with rates and taxes amounting to £2,500. The alterations and installations carried out by the Engineer Services amounted to, approximately, £7,000.

By the end of 1918 the claim of the Canadian Government against the Imperial Authorities for accommodation and installations in London amounted to £63,768 2s. 9d. The Canadian Overseas Ministry had for some time been pressing for an adjustment and finally, after several conferences, the Imperial Government agreed to accept full financial responsibility for all premises in England occupied by the Canadian Troops and Services, and further, to make a refund on a basis which, in view of all the circumstances, was regarded as both equitable and satisfactory.

Since October 1, 1918, the Imperial Authorities have acknowledged the principle that all accommodation for Canadians in the British Isles should be the sole charge of the Imperial Government, and have accepted the responsibility for same.

Altogether the work of the Canadian Engineer Services has been the means of a large saving of expenditure to Canadian funds, and, by careful inspection and necessary repairs to the buildings occupied, will prevent large damage claims being preferred against the Canadian Government on the evacuation of such premises.

QUARTERMASTER - GENERAL'S BOARD OF OFFICERS

The original Board of Officers on Quartermasters' Stores (comprising six officers) was organised on January 27, 1917, and dealt mainly with the affairs of Units arriving from Canada which were depleted and absorbed on this side.

On September 23, 1917, the old Board was disbanded and the present one, consisting of two officers (additional members being detailed as required), was established.

This Board deals with deficiencies disclosed by the periodical and final inspections carried out by the Quartermaster-General's

Inspection Department on Quartermasters' and Barrack Stores in all Areas and hospitals in England. All available evidence is taken from all concerned in connection with such shortages, which is given careful consideration by the Board, and recommendations as to adjustment submitted to the Quartermaster-General for concurrence and final action.

This manner of dealing with deficiencies in Quartermasters' Stores has many advantages, such as :—

- 1. The holding of Brigade and Divisional Boards is rendered unnecessary, and much time and money thereby saved to the Government.
- 2. All Units are dealt with on the same basis.
- 3. Prompt adjustment can be made so that clearances may be granted Commanding Officers required for other duties.
- 4. Commanding Officers, as well as the public, are given every protection, as they have an opportunity of furnishing explanations concerning deficiencies.
- 5. Inefficiency in conduct of Quartermasters' Departments is brought to light and remedial action taken.
- 6. In instances of changes of command (or Quarter-masters) any necessary charges for deficiencies against the retiring Commanding Officer can be promptly made and the incoming Commanding Officer starts with a clean sheet.

WAR TROPHIES.

It was agreed, as a matter of general policy between the Imperial Government and the Governments of the various Dominions, that War Trophies captured by the troops of the different Dominions should ultimately become the property of their respective Governments. The Imperial War Trophy Committee was appointed to deal with all matters concerning trophies captured from the enemy, and on July 11, 1917, Sir George Perley arranged for Colonel K. C. Folger, D.S.O., to be the representative of the Overseas Military Forces of Canada on this body. Colonel Folger has continued to look after the interests of Canada until the present time.

The system employed in handling War Trophies is briefly as follows:—

All Trophies captured are labelled on the Field and turned into the Ordnance Department in the Field, which ships them to the Ordnance Base in France. The Trophies are then shipped to England to the Imperial Ordnance War Trophies Depot, situated at West Croydon. In addition to labelling the Trophy, the Unit responsible for its capture must put in an application for it to be allocated to them. The claim for the Trophy is investigated at the War Office, and, if it is substantiated, Colonel Folger receives notification that the Trophy in question has been allocated to the Unit concerned.

In accordance with existing regulations, no captured article can be considered a Trophy until after it has been examined by experts at Croydon, who decide whether or not it can be used in action against the enemy or whether it is required for experimental or instructional purposes. If the trophy is considered to be of no further use for War purposes, it may then be disposed of as the representative of the claimant desires. Several Canadian Trophies, such as small Field Guns and Machine Guns, have been taken over for the use of the British Navy for Coast Defence purposes use on Trawlers, etc. Should these vessels be available at the end of the War, the articles claimed as trophies will revert to the Canadian Authorities. A typical illustration of how this method works may be cited in the case of the field guns captured by the Canadians from the Germans at Vimy. In the ordinary course of events these guns might have been regarded as trophies, but military necessity required that they should be turned upon the enemy at the time and they were consistently used against the enemy up to the date of the Armistice.

Shipments of War Trophies to Canada have been made from time to time during the past 18 months as sufficient quantities became available to justify a shipment, and this transport will be continued until all Canadian Trophies have been transported to the Dominions. Up to February 28, 1919, the War Trophies shipped to Canada were as follows:—

Machine Guns	 	 	239
Field Guns	 	 	32
Howitzers	 	 	9
Mortars	 		129
Miscellaneous	 	 	356



CANADIAN CORPS OPERATIONS.

Synopsis: Interim Report.

The following interim report covering the operations of the Canadian Corps during the year 1918 is submitted by Lieut.-Gen. Sir A. W. Currie, G.O.C., Canadian Corps.

For convenience, this report divides the year into arbitrary periods of unequal length extending respectively from:—

PART I.:—January 1 to March 21.

March 21 to May 7.

May 7 to July 15.

PART II. :- JULY 15 TO NOVEMBER 11.

PART III. :—November 11 to December, 1918.

It is intended to supplement this report at the earliest possible moment and to give a detailed narrative of the operations of the Corps during the period extending from July 15, 1918, to November 11, 1918, on which date hostilities terminated.

(642)







The sea of mud through which the Canadians had to struggle to victory at Passchendaele. A German shell is bursting near the stranded Tank.

Interim Report on the Operations of the Canadian Corps during the Year 1918.

PART I.

1st Period. January 1 to March 21.

Disposition.—After the Battle of Passchendaele the Canadian Corps returned to the Vimy Sector and settled down to the routine of trench warfare—the front held on January 1 extended from Acheville to Loos (both inclusive), a total length of approximately 13,000 yards.

In order to allow the Divisions to absorb more quickly the fresh drafts newly received and to make rapid headway with the training of the officers and N.C.O's, it was my intention to hold the Corps front during the winter with two Divisions in the line and to keep two Divisions resting and training in reserve.

The pressure of circumstances and the large amount of defensive work to be done caused me to deviate from the original intention, and the normal dispositions adopted throughout the winter were as follows:—

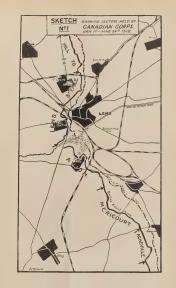
In the line—Two Divisions on a two-Brigade front, and one Division on a one-Brigade front.

In reserve—Training and resting, one Division.

In this way the four Canadian Divisions had each approximately one month out of the line, and in addition they had the opportunity of doing a certain amount of training by Brigades when in the line.

The table hereunder gives the disposition of the Divisions of the Canadian Corps at various dates, the sections are shown on Sketch No. 1:—

IN RESERVE.	110111118 231000	Auchel. 1st Cdn. Div. Norrent Fontes, 2nd Cdn. Div.	Auchel. 3rd Cdn. Div.	Bruay. 4th Cdn. Div.	Auchel. 2nd Cdn. Div.	Chateau de la Haie. 1st Cdn. Div. Fort George. 2nd Cdn. Div.
	ACHEVILLE.					3rd Cdn. Div.
	MERICOURT.	4th Cdn, Div.	2nd Cdn. Div.	3rd Cdn. Div.	3rd Cdn. Div.	3rd Cdn. Div.
THE LINE.	AVION.	4th Cdn. Div.	2nd Cdn. Div.	3rd Cdn. Div.	3rd Cdn. Div.	3rd Cdn. Div.
SECTIONS IN THE LINE.	LENS.	3rd Cdn. Div.	4th Cdn. Div.	2nd Cdn. Div.	4th Cdn. Div.	4th Cdn. Div.
	ST. EMILE.	3rd Cdn. Div.	1st Cdn. Div.	1st Cdn. Div.	4th Cdn. Div.	4th Cdn. Div.
	HILL 73.	3rd Cdn. Div.	Jan. 23 1st Cdn. Div.	Feb. 21 1st Cdn. Div.	Mar. 14 1st Cdn. Div.	Mar. 24 4th Cdn. Div.
	DAIE.	1918. Jan. 1	Jan. 23	Feb. 21	Mar. 14	Mar. 24





Organisation.—With the disappearance of the Russian front it was easily foreseen that the Germans would be able to turn the bulk of their forces against the Allies on the Western front, and that their resources in men and material would be such that our power of resistance would be severely tried.

In order to prepare for the coming test, and with the lessons of previous fighting fresh in my mind, it was resolved that every effort should be made to bring the Corps to the highest possible fighting efficiency.

This I undertook to do in consultation with the Divisional Commanders and the heads of the various arms, services and branches, by eliminating, as far as was in my power, everything which was not conducive to efficiency in administration, training or fighting.

Lessons from previous fighting had shown that certain branches of the service should be strengthened and reorganised. The Engineers and Machine Guns in particular were not able to accomplish their tasks in battle without drawing heavily on the Infantry for additional personnel—the more severe the battle, the more severe were the losses suffered by the Infantry, and at the same time the more men required by the Engineers and Machine Guns.

This diversion of the fighting strength of the Infantry to meet the needs of the Engineers and of the Machine Guns, and the interference for the same reason with the training or resting of Infantry Battalions when out of the line, was most unsatisfactory.

I submitted, therefore, proposals which were designed to give sufficient personnel to these services, and which would stop the drain on the Infantry.

At this time the British Army was undergoing far-reaching alterations in its organisation. The situation as regards man-power appeared to be such that, in order to maintain in the field the same number of Divisions, it was necessary to reorganise the Infantry Brigades from a four-battalion basis to a three-battalion basis. Other changes of less importance were also taking place.

Although the situation of the Canadians regarding reinforcements appeared to be satisfactory so long as the number of Divisions in the field was not increased, a proposal was made to adopt an organisation similar to the British, that is, to reduce the number of Battalions in the Canadian Infantry Brigades from four to three.

Concurrently with this change, it was proposed to increase the number of Canadian Divisions in the field from four to six.

I did not think that this proposal was warranted by our experience in the field, and I was quite certain that, owing to the severity of the losses suffered in modern battles, the manpower of Canada was not sufficient to meet the increased exposure to casualties consequent on the increased number of Canadian Divisions in the field.

I represented very strongly my views to the Minister, Overseas Military Forces of Canada, and, on further consideration, it was decided to drop this project, and to accept instead my counter-proposal, viz., to increase the establishment of the Canadian Infantry Battalion by 100 all ranks, to proceed with the reorganisation of the Engineers and Machine Gun Services, and to grant the various amendments suggested to establishments of other Arms and Branches.

I am glad to be able to say that my proposals regarding the reorganisation of Engineer Services, Machine Guns, etc., as well as the increase in strength of the Infantry Battalions, received the favourable consideration and support of the Commander-in-Chief.

Defences.—It will be recalled that the ground held by the Canadian Corps throughout this period had been captured by the Canadians in the Battle of Vimy and subsequent actions, and held by them practically since its capture, except for a short interval during the Battle of Passchendaele. The area had been considerably improved during this time, and a very complete system of trench railways, roads, and water supply were in operation. Very comprehensive defences had been planned and partially executed.

Behind Vimy Ridge* "lay the northern collieries of France and certain tactical features which cover our lateral communication. Here . . . little or no ground could be given up . . ." (See Sketch No. 2.)

A comparatively shallow advance beyond the Vimy Ridge would have stopped the operation of the collieries, paralysing the production of war material in France, as well as inflicting very severe hardship on the already sorely tried population. In conjunction with the shortage of shipping which practically forbade an increase in the importation of coal from England, the loss of the northern collieries might have definitely crippled

^{*} Extract from C.-in-C.'s Despatch, 8th July, 1918.

France. On the other hand, a deep penetration at that point, by bringing the Amiens-Bethune railway and main road under fire, would have placed the British Army in a critical position, by threatening to cut it in two and by depriving it of vital lateral communication.

The tactical and strategical results to be gained by a moderate success at that point were so far-reaching in effect that, notwithstanding the natural difficulties confronting an attack on that sector, it was fully expected that the German offensive would be directed against this, the central part of the British Front.

The French knew well the value of the ground here. To recapture it in 1915 they had engaged in the most savage fighting of the war and sacrificed the flower of their regular army.

Although the British Front had later been extended to the south, and Vimy Ridge had become the centre sector of the British Army, the French always manifested the deepest interest in this sector, and it was often visited by their Generals and other officers of high rank.

With the prospect of a German Offensive now confronting us, I ordered that the defences should be revised, to take advantage of the lessons recently learned and to embody the latest methods. Moreover, instructions had been issued by the First Army defining the policy of defence to be adopted and the methods to be followed.

The completion of the revised Corps defences and the execution of the new Army programme resulted in the organisation of a very deep defended area, consisting of successive defensive systems, roughly parallel to the general line of the Front and linked together by switch lines sited to protect both flanks.

Each defensive system was designed to protect definite topographical features, the loss of any one of which would considerably handicap the defence by uncovering our artillery.

As planned, the main framework of the defence in depth was based upon Machine Gun positions, protected by belts of wire entanglement so placed, in relation to the field of fire of the Machine Guns, that they were enfladed over their entire length. The whole area was compartmented in such a way that the loss of ground at any one point could be localised and would not cause a forced retirement from adjoining areas. (See Photo-Map No. 3.)

Machine Gun emplacements of the Champagne type were constructed, and dug-out accommodation for the Machine Gun Detachments was provided in the deep tunnels of these emplacements.

This framework was completed as rapidly as possible by trenches and by defended localities organised for all-round defence.

A great many dug-outs were made to accommodate the garrisons of these localities, and for Dressing Stations and Battle Headquarters. Advantage was taken of the possibility of utilising the subways tunnelled in 1916-17 for the attack on Vimy Ridge, and in addition steps were taken to create an obstacle on the southern flank of Vimy Ridge by the construction of dams to enable the Valley of the Scarpe to be flooded as required. Trial inundations were made to ensure the smooth working of these arrangements.

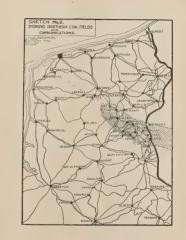
A great deal of care was given to the distribution of the artillery in relation to the policy of defence. Three systems of Battery positions were built so as to distribute the guns in depth and sited so as to cover the ground to the north-east, east, and south, in case the flanks of the Corps should be turned. These Batteries were protected with barbed wire entanglements and Machine Gun positions against a sudden penetration of the enemy, and they were designed to become the natural rallying points of our Infantry in this eventuality.

Successive lines of retirement were also prepared, battery positions were selected, organised, and marked, cross-country tracks were opened up, and observation posts, echeloned in depth, were located and wired in.

On Vimy Ridge alone, seventy-two new battery positions were built and stacked with ammunition: these positions could be used either for the distribution of the Corps Artillery in depth, or as positions which reinforcing Artillery could immediately take up in the event of a heavy attack.

The greatest energy, enthusiasm, and skill was employed in the prosecution of the work by all concerned, and I am greatly indebted to Major-General P. de B. Radcliffe, then B.G., G.S., for his untiring and devoted efforts.

The weather being much finer during the months of January, February, and March than is generally the case, very good





progress was made, and the following defensive works were completed in rear of the main front line defensive system:—

250 miles of trench.

300 miles of barbed wire entanglements.

200 tunnelled Machine Gun emplacements.

In addition to the above, existing trench systems, dug-outs, gun positions and Machine Gun emplacements were strengthened and repaired. Each trench system was plentifully marked with signboards and many open Machine Gun positions were sited and marked.

Machine Gun positions, defended localities and certain portions of trenches were stored with several days' supply of ammunition, food, and water for the use of the garrisons.

The importance attached by the French to the Vimy Ridge sector was further emphasised by the visit of General Roques, formerly Minister of War, and at that moment attached to the Cabinet of the Minister of War.

Having thoroughly inspected the defences of the Canadian Corps, he expressed himself as satisfied that every effort had been made to secure the Vimy Ridge against any surprise attack.

Activity.—The Front held remained comparatively quiet during January and, except for minor patrolling encounters and occasional shoots, nothing beyond the usual activity ever prevailing on a Front held by this Corps occurred.

In the months of February and March little or no work was being done by the enemy on his actual defences, but roads and disused trench railways were being repaired. In the rear areas his ammunition and Engineer supply dumps were increasing in number and in size, while fresh Battery positions were appearing almost daily. Furthermore, hostile aircraft and anti-aircraft guns were very active in preventing reconnaissance by our aeroplanes.

Early in March it was considered that the enemy's Front opposite us was ready for offensive operations. No concentration of troops had been observed, but the numerous towns and villages in close proximity to the Front provided extensive accommodation and made it possible for him to conceal such concentrations. Conditions so favourable to the Germans required relentless vigilance on the part of the Corps Intelligence Organisation, as we were dependent on the efficiency of this branch of the service for timely warning against surprise attacks.

In addition to the preparations above mentioned, the enemy assumed early in February a very aggressive attitude, raiding our lines very frequently, using for the purpose specially trained storm troops. His destructive shoots and intense gas shelling were also of frequent occurrence.

I decided to quell this activity, and numerous counterraids, retaliation shoots and gas projections, especially in the Lens Sector, soon had the desired effect.

Prisoners captured in our raids stated that all their Divisions had been brought up to strength and were undergoing hard training in the tactics of semi-open warfare. They stated, or left it to be understood, that the forthcoming German attacks were based on a very deep initial penetration and the rapid exploitation of success. No indications were given as to the points at which attacks would be launched, but they stated that every one of their sectors was prepared and practically ready. It was also definitely established that the enemy reserve divisions were kept near railways, ready to be moved quickly to the parts of the Front selected for the coming drive.

Second Period. 21st March-7th May.

Battle of Amiens.—In the early morning of March 21 the enemy launched a violent attack on the fronts of the Fifth and Third British Armies.

It was soon evident that the opening stages of the battle were going in favour of the Germans, and that, notwithstanding the strenuous resistance offered, our defences were being overrun, more particularly the southern portion of the British line on the front of the Fifth Army.

The Canadian Corps was not directly involved in the battle and my dispositions on that date were as follows:—

3rd Canadian Division—(Maj.-Gen. L. J. Lipsett), in the line, Mericourt-Avion Sections.

4th Canadian Division—(Maj.-Gen. Sir D. Watson), in the line, Lens-St. Emile Sections.

1st Canadian Division—(Maj.-Gen. Sir A. C. Macdonell), in the line, Hill 70 Section.

2nd Canadian Division—(Maj.-Gen. Sir H. E. Burstall), resting, Auchel Area.

At 3.50 p.m. on the 21st, First Army ordered Canadian Corps to take over the front of the 62nd Division (left Division





of XIII. Corps) in the Acheville Sector, the relief to begin on the night 21st/22nd and to be completed on the night 23rd/24th.

The 2nd Canadian Division was warned immediately for this relief, but at 4.04 p.m. First Army ordered Canadian Corps to keep one complete Division in Army Reserve. The warning order to the 2nd Canadian Division was, therefore, cancelled.

The 3rd Canadian Division was then ordered to extend its frontage and relieve the 62nd Division in the Acheville-Arleux Sector.

A little later, a further order arrived from First Army instructing Canadian Corps to be prepared to relieve the 56th Division (right Division of XIII. Corps), and in accordance with this the 2nd Canadian Division was warned by wire at 7.40 p.m. In the evening this order was cancelled.

On the 22nd, at 9.00 p.m., I ordered the relief of the 1st Canadian Division, then holding the Hill 70 Sector, by the 4th Canadian Division, so as to have a reserve in hand.

During the same night, 22nd/23rd, at 11.00 p.m., following a teiephonic conversation with General Headquarters, the 1st Canadian Motor Machine Gun Brigade, then in the line on the Vimy Sector, was withdrawn and ordered to be prepared to move south to the Fifth Army area.

On confirmation of the order by telephone through the regular channels, this Unit left Verdrel at 5.30 a.m. on the 23rd to report to the Fifth Army. By midnight all batteries were in action on a 35 mile front east of Amiens, having travelled over 100 miles during the day.

"The 1st C.M.M.G. Brigade (Lt.-Col. W. K. Walker), under orders of the Fifth and later of the Fourth Army, was ordered to fight a rearguard action to delay the advance of the enemy and to fill dangerous gaps on the Army fronts. For 19 days that Unit was continuously in action North and South of the Somme, fighting against overwhelming odds. Using to the utmost its great mobility, it fought over 200 square miles of territory. (See Sketch No. 4.) It is difficult to appraise to its correct extent the influence, material and moral, that the 40 machine guns of that Unit had in the events which were then taking place. The losses suffered amounted to about 75 per cent. of the trench strength of the Unit, and to keep it in being

throughout that fighting, I authorised its reinforcement by personnel of the Infantry branch of the Canadian Machine Gun Corps."

On the 23rd, at 10.50 a.m., the 2nd Canadian Division was ordered to concentrate at once west of Arras in the Mont St. Eloi area, and having carried this out passed into General Headquarters Reserve. The 1st Canadian Division, in process of relief by the 4th Canadian Division, passed therefore into Army Reserve in compliance with the First Army order of the 21st, referred to above.

The relief was completed on the 24th, and my dispositions were then as follows:—

In the line—on a total front of 17,000 yards:—

3rd Canadian Division, Acheville-Mericourt-Avion Sections.

4th Canadian Division, Lens-St. Emile-Hill 70 Sections.

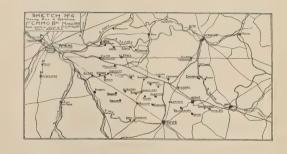
In Army Reserve—1st Canadian Division, Chateau de la Haie area.

In General Headquarters Reserve—2nd Canadian Division, Mont St. Eloi area.

On the night of the 25/26th, at 12.40 a.m., I was ordered to extend my front to the north, and preparations were made accordingly to relieve the 11th and 46th Divisions with the 1st Canadian Division. The intention was to concentrate an Army Corps on the southern flank of the First Army for action on the northern flank of the German attack, which was still progressing rapidly.

This order was, however, cancelled at 10.20 p.m. on the 26th, and instead the following dispositions were substituted, with effect from the night 27/28th:—

- (a) The 3rd Canadian Division in the line to come under orders of the G.O.C. XIII. Corps at noon, March 27.
- (b) The 1st Canadian Division to move to the area to be vacated by the 2nd Canadian Division, west of a line Maroeuil-Carency, and to pass into General Headquarters Reserve.
- (c) The 4th Canadian Division to be relieved by the 46th Division (I. Corps) and pass into General Headquarters Reserve.
- (d) Canadian Corps Headquarters to pass into General Headquarters Reserve.





Meanwhile, under instructions from First Army, the 2nd Canadian Division was ordered by telephone at 3.30 p.m., 26th, to move as soon as possible to the area Pommier-Bienvillers-Bailleulval, with Headquarters at Basseux. On completion of the move, the 2nd Canadian Division would cease to be in General Headquarters Reserve and be transferred to Third Army. Accordingly, during the night 26th/27th the 2nd Canadian Division moved by bus and march route to the Basseux area.

On the 27th, at 4.05 p.m., the 1st Canadian Division was ordered to move to Couturelle area.

Both these Divisions were transferred from General Headquarters Reserve to Third Army.

"The 1st Canadian Division was moved by buses to Couturelle area, embussing at about midnight, 27th/28th. At dawn, March 28, the enemy struck heavily astride the River Scarpe, and the 1st Canadian Division was ordered at 10.30 a.m. to retain the buses by which they had moved south and to move back to the Arras-Dainville area at once, coming there under orders of the XVII. Corps.

This move was very difficult because some buses had already been sent back to the Park, many Units were still en route to the Couturelle area, and the mounted Units and transport were in column on the road Hauteville-Saulty-Couturelle. The Division, however, extricated itself, and on the night of the 28th, under orders of the XVII. Corps, placed two Battalions in the forward area in support of the 46th Infantry Brigade, 15th Division. At daybreak on the 29th, the 3rd Canadian Infantry Brigade moved to support the 15th Division, and during the night 29th/30th 1st Canadian Infantry Brigade relieved the 46th Infantry Brigade in the Telegraph Hill Sector, that brigade front being transferred from the 15th Division to the 1st Canadian Division on March 30."

"The 2nd Canadian Division passed under orders of the VI. Corps on March 28, and moved forward in support of the 3rd (British) Division in the Neuville Vitasse Sector. On the night of March 29th/30th, it relieved the 3rd (British) Division in the line, and on the night of March 31/1 April extended its front southwards by relieving the left battalion of the Guards' Division.

The front held by the 2nd Canadian Division extended from south of the Cojeul River, east of Boisleux St. Marc, to the southern slopes of Telegraph Hill (where it joined with the 1st Canadian Division), a total length of about 6,000 yards. The 2nd Canadian Division held this front for an uninterrupted period of 92 days. during which time it repulsed a series of local attacks and carried out no less than 27 raids, capturing three officers, 101 other ranks, 22 machine guns, two trench mortars, and inflicting severe casualties on the enemy. The aggressive attitude adopted by this Division at such a critical time and under adverse conditions had a most excellent effect on our troops, and it certainly reduced to the lowest point the fighting value of two German Divisions, namely, the 26th Reserve Division and the 185th Division. The 2nd Canadian Division returned under the orders of the Canadian Corps on July 1.

In compliance with First Army Orders, I had handed over command of the 3rd Canadian Division in the line to the XIII. Corps at 12 noon, March 27.

The 4th Canadian Division was warned for relief by the 46th Division on the night 27th/28th, and would then come into General Headquarters Reserve.

The 1st and 2nd Canadian Divisions had been placed under orders of the Third Army.

Thus, under the pressure of circumstances, the four Canadian Divisions were to be removed from my command, placed in two different Armies (Third and First), and under command of three different Corps (VI., XVII. and XIII.).

This disposition of the Canadian troops was not satisfactory, and on receipt of the orders above referred to I made strong representation to First Army, and offered suggestions which to my mind would reconcile my claims (from the standpoint of Canadian policy) with the tactical and administrative requirements of the moment.

Battle of Arras.—The Germans launched a very heavy attack at dawn on the 28th from Gavrelle to Puisieux, and were successfully repulsed by the 3rd, 15th, 4th and 56th British

Divisions. The attack was renewed in the afternoon, north of the Scarpe, on the front of the 56th Division, but did not there meet with greater success. A certain amount of ground had, however, been captured by the enemy.

The troops of the Canadian Corps were not directly engaged in this fighting.

The renewed attack on the 56th Division had considerably lowered its power of resistance. German prisoners captured in the morning were insistent that the attack would be renewed again on the 29th, by storm troops which had been held in reserve for the purpose of capturing the Vimy Ridge by attacking it from the South. It was most urgent that the 56th Division should be supported without delay.

I received instructions from the First Army at 8.15 a.m., March 28, to the effect that the 4th Canadian Division, then holding the Lens-St. Emile-Hill 70 Sector, would be relieved on the night of the 28th/29th by the 46th British Division, I. Corps, and would in turn relieve the 56th British Division in the Oppy-Gavrelle Sector.

On the completion of this relief the Canadian Corps would relieve the XIII. Corps, and I would assume command of the 3rd and 4th Canadian Divisions.

In the meantime, all the battalions which the 4th Canadian Division could spare were to be sent at once by the quickest way to the support of the 56th Division.

The 4th Canadian Division, therefore, immediately organised a Composite Brigade, under Brigadier-General V. W. Odlum, consisting of the three reserve battalions of the 10th, 11th and 12th Brigades, and the support battalions of the 11th and 12th Brigades. This Composite Brigade was moved in haste by light railway and lorry to the vicinity of Mont St. Eloi, from whence it marched into reserve positions during daylight on the 28th.

On the night of the 28th/29th the Units of the 56th Division which had been most heavily engaged were relieved by these five Canadian battalions, which came under orders of the 3rd Canadian Division.

It was not until about 10.00 p.m. on the night of the 28th/29th that the leading troops of the 46th Division arrived and began to relieve the 4th Canadian Division.

In view of the seriousness of the situation, Units of the 4th Canadian Division were moved, as the relief progressed,

by lorry and light railway to Neuville St. Vaast, and marched quickly into the line to relieve elements of the 56th Division.

Due to the energy shown by the G.O.C., 4th Canadian Division (Maj.-Gen. Sir D. Watson), and his staff, and to the initiative and discipline of his troops, this difficult three-cornered relief, under the menace of an impending attack, was quickly and smoothly carried out.

On the morning of the 29th, at 8.00 a.m., the G.O.C., 4th Canadian Division, handed over command of the Lens-St. Emile-Hill 70 Sector to the G.O.C., 46th Division, I. Corps, and the I. Corps took over this sector from the Canadian Corps at 8.30 a.m. on the same day.

At 6.45 a.m. on March 30, the relief of the 56th Division by the 4th Canadian Division having been completed, the command of the XIII. Corps front passed to Canadian Corps.

This was the first result of my representations regarding the removal of the Canadian Troops from the control of the Canadian Corps.

The situation of the Canadian Divisions at noon, March 30, was as follows (see Sketch No. 5):—

Third Army.

Under VI. Corps—2nd Canadian Division: Neuville Vitasse Sector.

Under XVII. Corps—1st Canadian Division: Telegraph Hill Sector.

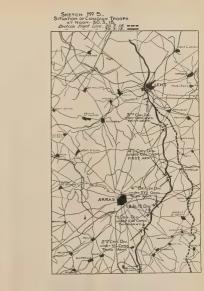
First Army.

Under Canadian Corps—3rd Canadian Division: Acheville-Mericourt-Avion Sector.

Under Canadian Corps—4th Canadian Division : Gavrelle-Oppy Sector.

In furtherance of those of my suggestions which had been accepted, it was arranged that the 1st Canadian Division should relieve the 4th British Division astride the Scarpe on the 7th/8th April, and come under orders of Canadian Corps; the Army boundaries being altered so as to include the sector taken over by the 1st Canadian Division in the First Army front.

In the meantime, on the night 28th/29th, owing to operations astride the River Scarpe, the front line system had been abandoned under orders of the XIII. Corps and the troops withdrawn to the Blue Line in front of the Bailleul-Willerval-Chaudiere-Hirondelle Line, as far north as the Mericourt Sector.





This Blue Line was originally sited and constructed as an intermediate position, and consisted in most parts of a single trench none too plentifully supplied with dug-outs. This meant that until a support line was dug and made continuous the troops had to be kept in strength in the front line, subject to heavy casualties from hostile shelling and to probable annihilation in case of an organised attack.

Any advance beyond the Blue Line on the 4th Canadian Division front would have brought the Germans within assaulting distance of the weakest part of the Vimy Ridge, and the severity of the shelling seemed to indicate that a renewal of their attacks was probable.

I therefore directed that every effort should be made to give more depth to our new front line system by pushing forward a line of outposts and by digging a continuous support line, as well as by constructing reserve lines at certain points of greater tactical importance. Switch lines facing south were also sited and dug or improved.

Every available man was mustered for this vital work, and the need of properly organised Engineer Services was very keenly felt.

To increase the depth of our defences, Machine Gun Detachments were extemporised by borrowing men from the Machine Gun Battalions, who had then completed their organisation on an eight-battery basis. Some 50 extra machine guns were secured from Ordnance and other sources, and also a number of extra Lewis guns.

Personnel from the Canadian Light Horse and the Canadian Corps Cyclist Battalion were organised in Lewis and Hotchkiss Gun Detachments and sent forward to man the defences in Vimy and Willerval localities, under orders of the 3rd and 4th Canadian Divisions.

The Machine Gun Companies of the 5th Canadian Division had arrived in France on March 25, and in view of the extreme urgency of the situation the personnel and armament had been moved by lorries, sent specially by Canadian Corps, from Le Havre to Verdrel, where they were in Corps Reserve.

Their horse transport, having now arrived, these Machine Gun Companies (17th, 18th, and 19th) were moved to the Vimy Ridge and allotted definite positions of defence on March 30.

The relief of the 4th British Division by the 1st Canadian Division was completed at 7.00 p.m., April 8, and at that hour I

took command of this additional sector astride the River Scarpe.

The Front held by the Canadian Corps on April 8, 1918, was approximately 16,000 yards in length. It will be remembered that the 2nd Canadian Division under the VI. Corps (Third Army) was holding 6,000 yards of front, making a total of 22,000 yards of front held by Canadian troops. (See Sketch No. 6.)

Battle of the Lys.—On April 9 the Germans attacked on the Lys Front between La Bassee and Armentières. Making rapid progress, they crossed the Lys River on the 10th, and on the following days advanced west of Merville-Bailleul. They were well held at Givenchy by the 55th Division and their attack made no progress southwards.

The Canadian Corps was not involved in this fighting, but it now found itself in a deep salient, following with anxiety the development of the Battle of the Lys.

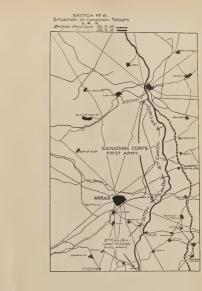
Orders had been issued (9/4/18) for the 2nd Canadian Division to be relieved from the line on the VI. Corps front and to then come into Canadian Corps Reserve in the Chateau de la Haie Area. These orders were now cancelled.

The Battle of the Lys added a new burden to the already sorely tried British Army, and it was imperative that troops should at once be made available to stop the German advance.

On the 10th, at 8.40 p.m., I received orders from First Army to extend my front by taking over from the I. Corps the line held by the 46th Division (Lens-St. Emile-Hill 70 sector), the relief to be commenced on April 11 and to be completed as soon as possible. This relief was completed on the night of the 12th/13th by the 3rd Canadian Division; concurrently with it, the inter-Divisional boundaries were readjusted and the Artillery redistributed to meet as well as possible the new conditions.

The Front held by the three Divisions then in the Canadian Corps had a length of approximately 29,000 yards; and of necessity the line was held very thinly and without much depth.

To deceive the enemy regarding our dispositions and intentions, we adopted a very aggressive attitude. The Artillery constantly harassed the enemy's forward and rear areas and our Infantry penetrated his line at many points





with strong fighting patrols and bold raiding parties. Gas was also projected on numerous occasions.

This activity on the immediate flank of the Lys salient greatly perturbed the enemy, who gave many indications of nervous uncertainty.

The situation was critical, and extensive steps were taken at once to increase the ability of the Canadian Corps to withstand hostile attacks.

The success of the German offensives emphasised the need of greater depth for defensive dispositions, which depend very largely on the stopping power of the machine gun. Unfortunately the number of machine guns with a Division was inadequate to give the required depth of defence on a front exceeding 4,000 yards in length. Each of my Divisions was now holding a front approximately 10,000 yards in length, and the extemporised Machine Gun Detachments formed previously, added to the Machine Gun Companies of the 5th Canadian Division, in my opinion were far from sufficient for the task.

I decided, therefore, to add a third Company of four Batteries to each Battalion of the C.M.G. Corps, thus bringing up to 96 the number of machine guns in each Canadian Division. This entailed an increase in personnel of approximately 50 per cent. of the strength of each Machine Gun Battalion.

These Companies were formed provisionally on April 12 by withdrawing 50 men from each Infantry Battalion. Of these men a portion was sent to the Machine Gun Battalion to be combined with the trained personnel, so that each machine gun crew would include at least four trained gunners. The remainder of the Infantry personnel withdrawn as above stated was sent to a special Machine Gun Depôt, formed for the purpose, and there underwent an abridged but intensive course of training. Thus an immediate supply of reinforcements was ensured. Twenty three-ton lorries had been borrowed from General Headquarters to supply a modicum of transport to the new Units, and on April 13 some of the new Machine Gun Batteries were already in the line at critical points.

Sufficient troops were not now available to garrison the local defences of Vimy Ridge, or to reinforce parts of the front if the enemy was successful in effecting a deep penetration.

Two special Brigades were therefore organised as under:

The Hughes Brigade.—Commanded by Lieut.-Colonel H. T. Hughes, and composed of :—

- "A" Battalion—185th, 176th, 250th Tunnelling Companies R.E., and 2nd, 4th, and 5th Army Troops Companies C.E.
- "B" Battalion—1st Canadian Divisional Wing.
- "C" Battalion—4th Canadian Divisional Wing.

Approximate strength—Officers, 184; Other Ranks, 4,050.

McPhail's Brigade.—Commanded by Lieut.-Col. A. McPhail, and composed of:—

" D" Battalion—(5th Canadian Division Engineers, Pioneer Reinforcements).

(1st Tunnelling Company C.E. and Third Army Troops Company C.E.)

- "E" Battalion—2nd Canadian Divisional Wing.
- "F" Battalion-3rd Canadian Divisional Wing.

Approximate strength—Officers, 148; Other Ranks, 4,628.

Proper staffs were organised for these Brigades and several alternative plans of engagement providing for different contingencies were prepared and practised.

In addition to these measures, each Division organised its own "last resort" Reserves, consisting of the personnel of the Infantry Battalions left at transport lines, transport personnel and Divisional Headquarters.

All these Units were given a refresher course in musketry and drill and they were detailed to defend definite localities.

Two Companies of the 11th Tank Battalion (24 Tanks) were placed at the disposal of the Canadian Corps on April 13. These Tanks had officers, drivers, and armament, but no other personnel. A sufficient number of trained Lewis gunners were found from the 1st, 3rd, and 4th Canadian Divisional Wings, and the C.F.A. supplied the required number of gunners.

The Tanks were then distributed at the critical points in the Corps area, namely:—

Behind the St. Catherine switch at intervals of about 300 yards, facing south—18 Tanks.

In the gap between the Souchez River and Boisen-Hache, facing east—three Tanks.

On the Ridge line behind Angres, facing east—three Tanks.

It was intended that these Tanks should form points of resistance to check any forward flow of hostile forces and so give time to our Infantry to re-form in case they should be forced back. In any event the Tanks were to remain in action for 12 hours after coming in contact with the enemy and thus gain the time so essential in a crisis.

The 1st Canadian Motor Machine Gun Brigade, now returned from the Amiens battle, was held as a mobile reserve at one hour's notice.

Bridges, railways, roads and pumping stations were prepared for demolition, to be blown up as a last resort.

Every contingency was prepared for down to the minutest detail, and nothing could be more inspiring than to witness the extraordinary spirit displayed by everybody in their untiring labour and ceaseless vigilance.

Extended almost to the breaking point, in danger of being annihilated by overwhelming attacks, the Corps confidently awaited the assault. All ranks of the Corps were unanimous in their ardent resolve to hold to the last every inch of the ground entrusted to their keeping.

It was for them a matter of great pride that their Front was substantially the only part of the British line which had not budged, and one and all felt that it could not budge so long as they were alive.

Eventually, the 1st, 3rd, and 4th Canadian Divisions were relieved in their sectors by the 15th, 51st, 52nd, 20th and 24th British Divisions. The relief started on May 1 and was completed on the 7th.

As the relief progressed, the Canadian Corps handed over command of the Avion-Lens-St. Emile-Hill 70 sectors to the XVIII. Corps and the balance of the front to the XVII. Corps.

The length of front held by the Canadian Corps at the various stages of the German offensive has been given previously, but it is here recalled that from April 10 until relieved the Corps held a line exceeding 29,000 yards in length; the 2nd Canadian Division, then with the VI. Corps, was holding 6,000 yards of front, making a total length of 35,000 yards of front held by the four Canadian Divisions.

The total length of the line held by the British Army between the Oise and the sea was approximately 100 miles, therefore the Canadian Troops were holding approximately one-fifth of the total front.

Without wishing to draw from this fact any exaggerated conclusion, it is pointed out that although the Canadian Corps did not, during this period, have to repulse any German attacks on its front, it nevertheless played a part worthy of its strength during that period.

3rd Period. May 7 to July 15.

The depth to which the enemy had penetrated in the Somme and the Lys Valleys had created a situation of extreme gravity with regard to the maintenance of communication.

It was known that notwithstanding the heavy losses suffered by the Germans they still enjoyed a sufficient superiority of forces to retain the initiative, and a renewal of their attacks on the line between the Oise and the sea was possible.

In prevision of these expected attacks, reserves comprising British and French Divisions were assembled behind the threatened front.

Tactical Dispositions.—On completion of the relief on May 7, with the exception of the 2nd Canadian Division which was still in the line in the Third Army area, the Canadian Corps was placed in the General Headquarters Reserve in the First Army area and disposed as follows:—

Headquarters .. Pernes, and later Bryas.

1st Canadian Division .. Le Cauroy Area.

3rd Canadian Division . . St. Hilaire Area.

4th Canadian Division . . Monchy-Breton Area.

Under instructions received from First Army, one Infantry Brigade and one Machine Gun Company from each Canadian Division were billeted well for wardin support of the Corps in the line as follows:—

- (a) One Infantry Brigade One M.G. Company
- (b) One Infantry Brigade One M.G. Company
- One Infantry Brigade
 One M.G. Company
- .. (Anzin Area. Support ... XVII. Corps.
- .. Chateau de la Haie Area. . . Support XVIII. Corps.
- .. | Ham en Artois Area. .. | Support XI. Corps.

These Brigades were kept under one hour's notice from 5.00 a.m. to 7.00 a.m. daily and under four hours' notice during the remainder of the day. The remainder of the Canadian Corps was under four hours' notice.

Reconnaissances of the front which the Corps would have to support in case of an attack were ordered and carried out by Staff and Regimental Officers.

The Brigades billeted forward were relieved from time to time under Divisional arrangements.

On May 23 the 74th British Division, newly arrived in France from Palestine, came under Canadian Corps for administration and training.

It was then necessary to rearrange the areas amongst the Divisions in the Corps to make room for the 74th Division and to equalise the training facilities.

With the exception of these moves, the disposition of the Canadian Corps remained substantially the same until June 25, 1918.

Organisation.—The reorganisation of most branches had been delayed by the considerable efforts of the preceding months, by the shortage of transport and matériel consequent on the great demands made by the reorganisation of British Units, and by the simultaneous requirements of the American Army, which was, in part, being equipped from British stores. In some cases also the necessary authority had not yet been obtained.

On May 24, 1918, it was decided to proceed with the reorganisation of the Canadian Engineers, for which authority had been obtained on March 21, 1918, but which had not been begun earlier for the reasons mentioned above.

This reorganisation was effected by the expansion of the three Field Companies then with each Division into one Engineer Brigade, consisting of three Engineer Battalions and a Pontoon Bridging and Transport Unit. The additional personnel required was furnished by the absorption into the new Units of the following:—107th, 2nd, 123rd, 124th Canadian Pioneer Battalions, 1st and 2nd Tunnelling Companies, C.E., and the three Field Companies of the 5th Canadian Division Engineers.

Motor transport was included in the establishment, and later a Canadian Engineer Motor Transport Company was formed.

The amount of work involved was considerable, nevertheless all the Units were substantially completed and made cohesive before the end of July.

Adequate staffs able to deal with the larger scope of activity of the new organisation were provided for the G.O.C., Canadian Engineers and for the Engineer Brigades.

Authority was also received and immediately acted upon for the formation of A.A. Searchlight Companies, C.E. This had been asked for in view of the increase in hostile night bombing, which, in addition to causing casualties, interfered greatly with the resting of the men.

The reorganisation of the Tramways Company, C.E., was also completed.

Application had been made early in the year for authority to form a Field Survey Company to assist in counter-battery work, and in the collection of intelligence; this Unit to consist of an Artillery Flash-spotting Section and a Section of Intelligence Observers.

The personnel had been selected and trained during the winter. Final approval having now been obtained, this Field Survey Company was definitely organised and placed for the time being under the G.O.C., C.E., for administration, and under the Counter Battery Staff Officer and Intelligence Branch for operations.

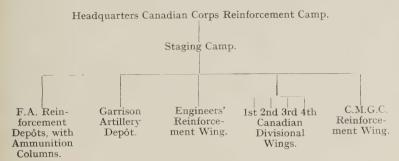
The addition of a Third Company to the Battalions, Canadian Machine Gun Corps, was authorised on May 7, 1918, and the organisation, which was already well under way, was rapidly completed with the exception of the transport of the Third Battalion, C.M.G.C., which transport did not become available until August.

The reorganisation of the Motor Branch, Canadian M.G. Corps, having been approved on June 3, 1918, two Motor Machine Gun Brigades, of 40 guns each, were formed by absorbing the Canadian Motor Machine Gun Units already existing and the 17th, 18th, and 19th Machine Gun Companies of the 5th Canadian Division. A Canadian M.G. Corps M.T. Company was also formed for the administration and maintenance of the Motor Transport.

Reinforcements.—While the reorganisation of the various arms and services was being carried out, the machinery both to receive, train, and despatch reinforcements from England

and to deal with returned casualties, was also being revised and improved.

The following organisation was finally put into force:—



The number of reinforcements maintained was increased so as to meet the increased establishments, and at the same time great attention was paid to the training of those reinforcements by the specially selected officers placed on the staffs of all Units of the C.C.R.C.

The provision of a Staging Camp enabled reinforcements to be handled quickly without moving the C.C.R.C., no matter where the Canadian Corps was engaged.

The areas where the Reinforcement Camp Wings and Schools of the Canadian Corps were established were now congested with troops and within range of shell-fire since the advance of the Germans in the Lys Valley. These Units not being mobile, and the eventual movements of the Canadian Corps being rather uncertain, all Divisional Wings, Reinforcement Camps, and Schools were removed from the Corps area and concentrated in the Aubin St. Vaast area, where suitable Camps were constructed by our Engineers.

Training.—As soon as the Corps was out of the line intensive training in open warfare *offensive tactics* was begun.

General Staff, General Headquarters, were publishing from time to time translations of captured German documents bearing on the latest tactics, and supplemented these by "Notes on Recent Fighting," dealing with the lessons of the fighting then in progress, both from the point of view of offence and defence. These documents were carefully studied and, to a large extent, inspired our training.

Detailed instructions were issued by Canadian Corps at various times precising the methods of Employment of

Artillery, Engineers, and Machine Guns in combination with the tactics of the Infantry.

The laying down of a definite Corps tactical doctrine was necessary by reason of the different organisation, the greater strength, and the particular methods which characterised the Canadian Corps.

It was not possible to forecast the length of time the Canadian Corps would be out of the line, and under these circumstances it was decided that combined training by Brigades should be given precedence to familiarise the Commanders and Staffs with the handling of troops in open warfare, and so give the different Arms and Services an opportunity of practising co-operation and mutual support.

Concurrently with this Tactical Training, the closest attention was paid to individual training, particularly to musketry in all its phases.

In the early part of June, in view of the good progress made, I directed that all Commanders should now concentrate on the training of smaller Units, especially the Platoon.

Many tactical schemes were carried out during May, June, and July, each emphasising some definite lesson, more particularly how to overpower resistance in an area defended by machine guns in depth by using covering fire and smoke grenades; how Batteries of Machine Guns should co-operate in assisting Infantry to get forward; and how sections of Field Artillery could best carry out an advance in close support of attacking Infantry.

During this period means were devised for making Stokes guns and 6 in. Newton T.M.'s more mobile, and special mountings were designed, manufactured and tested. The calibration of field guns was also carefully carried out, and experiments made on the use of High Explosive for barrages.

Preparations were being made in the meanwhile to recapture Merville and part of the Lys salient. This operation, for the purpose of maintaining secrecy, was always referred to as Delta.

The preparations for the projected "Delta" attack exercised a most vivifying influence on the training of the Canadian Corps; it familiarised all Arms and Services with the difficulties, both administrative and tactical, inherent to a surprise attack intended to penetrate suddenly to a great depth.





H.R.H. the Duke of Connaught, who took great interest in the Canadian Troops, congratulating the Captain of the winning Tue-al-War Team at the Canadian Corps' Sports in July, 1918.

Relief of 2nd Canadian Division.—The 2nd Canadian Division had been in the line since March 30, and I was most anxious that it should be relieved.

I had made representations to this effect from time to time, but the situation was such that no troops were available for this relief.

On June 24 it was arranged, however, that the 3rd Canadian Division would be transferred to the Third Army area from General Headquarters Reserve and would relieve the 2nd Canadian Division in the line. On completion of relief, the 2nd Canadian Division would come under Canadian Corps in General Headquarters Reserve, First Army area.

This relief was carried out and completed on the morning of July 1, at which date the disposition of the Canadian Corps was as follows:—

In General Headquarters Reserve. First Army Area. Headquarters Canadian Corps Bryas. Monchy-Breton Area. 1st Canadian Division . . Le Cauroy Area. 2nd Canadian Division Auchel Area. 4th Canadian Division . . St. Hilaire Area. 74th British Division In the Line. Under VI. Corps. Third Army Area. 3rd Canadian Division Headquarters, Basseux.

Dominion Day.—Since the arrival of the Canadians in France the celebration of Dominion Day had always been made the event of the year, but never before had it been so brilliant as on July 1, 1918.

The sporting events were keenly contested, and nothing could have been finer than to see the thousands of clean-limbed, healthy, sun-burned young Canadian soldiers who congregated for this occasion.

The Duke of Connaught, the Prime Minister of Canada, and a number of other distinguished Canadian visitors, together with a large concourse of British officers from the neighbouring formations, were interested spectators.

In addition to the Corps sports, the Divisions had arranged various entertainments, and these were greatly appreciated by the men.

Back to the Line.—On July 6. the Canadian Corps was warned to be prepared to relieve the XVII. Corps in the line. It was released from General Headquarters Reserve on July 10,

and the relief was carried out, being completed at 10.00 a.m., July 15, when I assumed command of the XVII. Corps front.

Disposition at that time was as follows:—

Headquarters Canadian Corps ... 2nd Canadian Division, in the line 1st Canadian Division, in the line 4th Canadian Division, in the line

Duisans (First Army Area). Telegraph Hill Section. Feuchy-Fampoux Section. Gavrelle-Oppy Section.

Under VI. Corbs.

Third Army Area.

3rd Canadian Division, in the line Neuville-Vitasse Section.

General Situation.—The Germans had not attacked again on the north-east portion of the Western Front, but they had secured considerable success elsewhere, and the general situation was still very threatening. (See Sketch No. 7.)

On May 27 they had struck a very heavy blow between Reims and Soissons and advanced rapidly on the following days as far south as the Marne, capturing Soissons and Chateau-

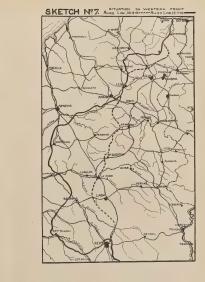
Again on June 9 they had struck between Soissons and Montdidier and captured the Massif of Lassigny. This attack had met with only partial success and very severe losses had been inflicted on the Germans.

On July 15 two other powerful attacks were launched as part of the same plan; the one east of Reims in the direction of Chalons, and the other south-west of Reims in the direction of Epernay. All news received during the day indicated that the Germans were being repulsed east of Reims with overwhelming losses, and although they had succeeded in crossing the Marne south-west of Reims, the situation appeared to be well in hand and the Germans were suffering heavily.

Everywhere on the Allied Front minor enterprises of everincreasing magnitude seemed to indicate that the time of passive resistance was definitely past.

4th Period. July 15 to November 11.

The relief of the XVII. Corps by the Canadian Corps on July 15, after the Corps' long period of rest and training, with the attendant movement and activity, made the enemy alert and anxious as to our intentions on this front. He was successful in securing identifications at various points of our line, which he penetrated by raiding.





As it was desired to keep him fully occupied on our front, the Artillery activity was increased and our Infantry engaged in vigorous patrolling and raiding.

This change of attitude confirmed the enemy in the opinion he had already formed, that an attack on this front was impending. Prisoners belonging to different Units which we captured in various parts of our front made repeated statements to that effect, and also disclosed the fact that two additional Divisions had been brought into the line.

On the night 18th/19th the Telegraph Hill front held by the 2nd Canadian Division was taken over by the 1st Canadian Division, and the former came into General Headquarters Reserve at 12 hours' notice in the Le Cauroy Area. On the same night the 4th Canadian Division extended their line, taking over the left Brigade front of the 1st Canadian Division. The reason given for this sudden readjustment was that an attack on the Second Army was impending.

On the afternoon of the 20th, Major-General J. H. Davidson, General Staff, Operations, General Headquarters, called at Corps Headquarters and explained that the Commander-in-Chief was considering a scheme submitted by the G.O.C. Fourth Army for freeing the Amiens-Paris Railway. He stated that the Commander-in-Chief proposed to use the Canadian Corps in this operation if the scheme was approved. It was the intention to effect a surprise, and therefore absolute secrecy was required.

On the following day, July 21, I attended a conference at Fourth Army Headquarters, where the operations contemplated were discussed. The Fourth Army Commander dwelt upon the importance of secrecy, and said that the only persons outside those at the conference to whom it was permitted to mention the coming operations were the General Officers Commanding R.A., Australian and Canadian Corps, the Counter-Battery Staff Officers, Canadian and Australian Corps, the Major-General, General Staff (O.a.), the Brigadier-General, General Staff (O.a.), G.H.Q. and the G.O.C. Tank Corps.

The officers present at the conference were:—

From Fourth Army Headquarters—

The Army Commander
Major-General G.S. . . Major-General A. A. Montgomery.
G.O.C., R.A. . . . Major-General C. E. D. Budworth.
G.S.O. 1 Operations . . Lieut.-Colonel R. M. Luckock.

From Canadian Corps Headquarters-

The G.O.C. .. Lieut.-General Sir A. W. Currie.

B.G., G.S. . . Brig.-General N. W. Webber.

From Australian Corps Headquarters—

The G.O.C. .. Lieut.-General Sir J. Monash.

B.G., G.S. . . Brig.-General T. A. Blamey.

From Tank Corps Headquarters—

G.S.O. 1 .. Lieut.-Colonel J. F. C. Fuller.

The operation as outlined at the conference was of limited scope, and was designed to relieve the pressure on Amiens and free the Amiens-Paris railway line, thus improving the situation at the junction of the French and British Armies. A large number of Tanks were to be made available for this operation.

The methods for maintaining secrecy and misleading the enemy were discussed. I pointed out that I had been considering a scheme for the capture of Orange Hill, and it was agreed that it would help materially to deceive *everybody* if preparations for this scheme were still continued.

It was decided that the Australian Corps would arrange a series of demonstrations of co-operation between Tanks and Infantry at their training school near Flixecourt, and that during the following week the Canadian Corps would send parties of officers each day to watch these demonstrations. The Brigadier-General General Staff, the General Officer Commanding, R.A., and the Counter Battery Staff Officer, would meanwhile be enabled to carry out a reconnaissance of the probable front of attack of the Canadian Corps.

The following day a conference of Divisional Commanders and members of the Corps Staff was held at Canadian Corps Headquarters, where the outline of the scheme for the capture of Orange Hill was explained, and the Divisional Commanders and Heads of branches and services concerned were asked to make all preparations for this attack as quickly as possible. It was stated that Tanks would be available for the operation and that it was therefore essential that all concerned should familiarise themselves with the combined tactics of Infantry and Tanks. I explained that demonstrations had been arranged with the Australians, and that it was my wish that the greatest possible number of officers should witness them.

In the meantime, the enemy was to be harassed on the whole Canadian Corps front by Artillery and Machine Gun fire, and numerous raids were to be carried out to procure positive identifications.

Further conferences were held from time to time at the Fourth Army Headquarters, where plans were made for the necessary reliefs and moves, and the question of the maintenance of secrecy further emphasised.

On July 26 the Fourth Army Commander stated that the plans originally put forward, and which had been approved by the Commander-in-Chief, had been modified by Marshal Foch, in that the First French Army would now co-operate with the Fourth British Army and be responsible for the right flank of the attack.

On the 27th the general boundaries and the objectives for the first day were fixed, and movements of the Canadian Corps and Tank Units were arranged. It was decided notably that Units were to leave their areas without knowing their destinations, and that it would be given out freely that the Canadian Corps was moving to the Ypres front, where the Second Army expected a German attack.

With a view to deceiving the enemy, two Battalions of the Canadian Corps were to be put in the line in the Kemmel area, and two Canadian Casualty Clearing Stations were to be moved to the Second Army area. Wireless and Power Buzzer Sections were to be despatched to the Kemmel Sector, and messages were to be sent worded so as to permit the enemy to decipher the identity of the senders.

Meanwhile the Canadian Divisions were busy preparing their scheme of attack on Orange Hill, and numerous Tanks were ostentatiously assembled in the vicinity of St. Pol.

A readjustment of boundaries between Divisions was made during the night July 23/24, when the 1st Canadian Division relieved the Left Brigade of the 3rd Canadian Division in the Neuville Vitasse Sector, which Sector came under the Canadian Corps (First Army). The remainder of the front held by the 3rd Canadian Division was taken over by the 59th British Division, and on completion of these reliefs, on July 27, the 3rd Canadian Division returned under Canadian Corps, and was held in General Headquarters Reserve in the Hermaville area.

On July 29 the XVII. Corps was ordered by First Army to relieve the Canadian Corps in the line during the night July 31/August 1, and August 1/2, reliefs to be completed by daylight on August 2, the Command of the Canadian Corps

front to pass to the General Officer Commanding XVII. Corps at 10.00 a.m., July 30, at which hour all Units and formations then in the Canadian Corps area were to come under the command of the XVII. Corps. This Army order stated plainly that the Canadian Corps would be prepared to move to Second Army, which, as indicated above, was then holding the northern section of the British front.

The 27th Canadian Infantry Battalion and the 4th C.M.R. Battalion respectively, from the 2nd and 3rd Canadian Divisions, were moved by strategical train to Second Army area where they were placed in the line. They did not rejoin their Divisions until August 6.

On this day, July 29, the Canadian Divisional Commanders were personally informed of the operations which were to take place on the Fourth Army front, and they were instructed not to discuss the operations with any of their subordinate Commanders.

On July 30 Canadian Corps Headquarters handed over to the XVII. Corps at 10.00 a.m., leaving a liaison officer to keep in touch with the 1st and 4th Canadian Divisions, which were still in the line.

The Canadian Corps Headquarters moved the same day to Molliens Vidame, and the transfer of the Canadian Corps from First Army area to Fourth Army area began. (See Sketch No. 8.)

When this move was well under way, and in order to continue to deceive our troops as to their eventual employment, a letter issued by First Army was repeated to all Canadian Divisions and communicated by them to their formations and Units, stating that the Canadian Corps was being transferred to the Fourth Army area, where it would be held in General Headquarters Reserve and be prepared in case of attack to:—

- 1. Move south at short notice to assist the French on the Rheims-Soissons front.
- 2. Support either the First French Army or the Fourth British Army.

This move, beginning on July 30, was completed on August 7/8, and was carried out in three main phases as follows:—

1. Move from the line to embussing or entraining areas (west of Arras).

2. Move from the embussing and entraining areas to the concentration area (south-west of Amiens, a distance of approximately 40 miles).

3. Approach march to battle assembly positions.

These moves were carried out by strategical train, buses and route marches with the utmost secrecy, the entraining and detraining taking place during the hours of darkness.

The entire move to the concentration area was carried out without serious hitch. The dismounted personnel had no marching of any great length, and all ranks arrived fresh and in excellent spirits. Owing to the short space of time available to transport troops and get them into the concentration area, it was necessary for Divisions to entrain the Infantry first so as to ensure their having a rest before starting on the march of approach. The area of concentration was well wooded, and it was possible to conceal the movements then in progress.

All moves forward of the Corps concentration area towards the battle assembly positions were carried out during the hours of darkness, and no movement of troops in formed bodies was permitted by day east of a north and south line through Molliens Vidame.

The approach march was especially difficult, the nights were very dark, the country new and most of the roads very narrow. In the case of the 1st Canadian Division especially, the moves were very hard on the transport sections. Owing to the speed necessary to enable the troops to get into position in time, the greater part of the approach march was accomplished in one jump by the use of buses. This necessitated a forced march of upwards of 30 kilometres for all horsed transport before rejoining their Units in the concentration area. This was particularly trying for the Train Companies, who throughout the march had to carry on with their normal supply duties. All these moves had to be carried out during the hours of darkness, a severe handicap, as the nights were very short at this time of the year.

Administrative Arrangements.—While the moves of the Canadian Divisions were in progress the Administrative Branches of the Corps were facing a most difficult problem. The battle area to be taken over had just passed from the French to the Australians, and none of the organisations necessary for British troops existed, part of the scheme to ensure secrecy being that nothing should be done in the area which might arouse the suspicion of the enemy.

The D.A. and Q.M.G. of the Canadian Corps (Brig.-General G. J. Farmar) had received no information regarding the actual operation until July 29.

The difficulties attending the accumulation of all kinds of ammunition required for the operation in such a short space of time were very great. The nearest Army dump from which we could draw ammunition was so far away that lorries could not make more than one trip a day. The advanced refilling points had not been selected, and the dumping of ammunition at these points did not really begin until August 3. There was a great shortage of lorries, a considerable number of the heavy Artillery Brigades arriving only two or three days before the attack. When the lorries of these Brigades became available, there was not sufficient petrol to keep all of them in operation.

In addition, all forward traffic was restricted to two main channels, the Amiens-Roye Road and the Amiens-Villers Brettoneux Road. The congestion on the latter was increased by reason of its being used in common with the Australian Corps.

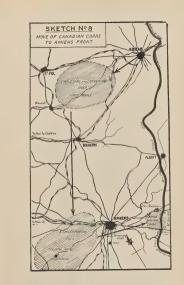
There were no dumps of trench ammunition in the area, and, notwithstanding all efforts made by our Administrative Branches in that direction, the supply of small arms ammunition and bombs was not quite adequate. As a matter of fact, some Units, failing to obtain British hand-grenades in time, used French grenades gathered at the French dumps.

The lack of adequate preparations to receive the large number of horses resulting from the great concentration of Artillery caused endless columns of horses to block the roads in the vicinity of the watering points.

Fortunately, the weather was unfavourable for flying, being cloudy and misty till August 6, and the abnormal traffic on roads resulting from these conditions remained undetected by the Germans.

With a view to drowning the noise of the Tank Engines, large bombing 'planes flew over the area while the Tanks moved forward into position from their lying-up places.

All sorts of expedients were resorted to, and in the main the difficulties encountered were overcome, thanks to the energy, discipline, training and untiring efforts of all concerned.





General Situation.—The general situation had now undergone very material changes.

A sudden stroke at the appropriate time had definitely crippled the plans for further offensive action which the Germans had formed.

The Allied counter-offensive of July 18, on the Soissons-Chateau Thierry front, following the breakdown of the German attacks of July 15 east and west of Rheims, left a large portion of the German Army badly involved in a deep salient, and on July 26, having lost all hope of extricating their troops in any other way, the German Higher Command ordered a retirement on that part of the Front to the line of the Aisne River.

This had the immediate local effect of considerably shortening the Allied front and relieving the pressure on Paris.

By this time the Germans had learned that they could not win, and so they began to follow a defensive policy. (This is revealed by their retirements on the Avre and the Ancre, where, in an endeavour to obtain better defensive positions, they abandoned positions favourable to the resumption of offensive operations.)

The magnitude of the German forces engaged on the Rheims-Soissons front, suffering as they were from the miscarriage of their offensive and from the effects of the Allied counterstroke, was such that it affected adversely the general situation of their reserves, and created a condition favourable to further attacks by our forces elsewhere.

The first step towards the exploitation of these favourable conditions was the enlargement by Marshal Foch of the operations against the salient of the Somme.

The operation east of Amiens which, as originally conceived, was of a purely local character, was now given a much larger scope, namely, the reduction of the entire salient created by the successful German offensive on March 21 and following days.

Just as the reduction of the salient of the Marne had been determined primarily by the successful Allied counter-attack of July 18, the reduction of the salient of the Somme was determined primarily by the deep and sudden penetration effected by our attack of August 8.

General Scheme of Attack.—The outline of the operations of August 8 had now been definitely fixed and was substantially as follows:—

The front of attack was to extend from Moreuil to Ville sur Ancre on a front of approximately 20,000 yards. The dispositions of the troops participating in the attack were as follows:—

- (a) On the right from Moreuil to Thennes (inclusive)— The First French Army under orders of Commanderin-Chief, British Army.
- (b) In the centre from Thennes (exclusive) to the Amiens-Chaulnes Railway—The Canadian Corps.
- (c) On the left from the Amiens-Chaulnes Railway to the Somme—The Australian Corps.
- (d) The left flank of the Australian Corps was covered by the III. (British) Corps attacking in the direction of Morlancourt.

The object of the attack was to push forward in the direction of the line Roye-Chaulnes with the least possible delay, thrusting the enemy back in the general direction of Ham, and so facilitating the operations of the French on the front between Montdidier and Noyon.

THE CANADIAN CORPS FRONT.

The Battle Front of the Canadian Corps extended from a point about 800 yards south of Hourges to the Amiens-Chaulnes Railway. It crossed the River Luce about 800 yards northeast of Hourges, and remaining well west of Hangard passed. through the western portion of Hangard Wood. The total length exceeded 8,500 yards in a straight line.

The right boundary was along the road Hourges-Villers-aux-Erables for a distance of about 2,600 yards, then east of Bertin Wood (inclusive), thence along the Amiens-Roye Road, inclusive to the Canadian Corps, in liaison with the First French Army.

The left boundary was along the Amiens-Chaulnes Railway, inclusive to Canadian Corps, in liaison with the Australian Corps.

The objectives for the first day were:

i. The Green Line, just east of the line Hamon Wood—Courcelles—Marcelcave—Lamotte-en-Santerre.

- ii. The Red Line, just east of Mezieres—White House— Camp Vermont Farm—and the high ground east of Guillaucourt.
- iii. The Blue Dotted Line, comprising the outer defences of Amiens, which ran east of the line Hangest-en-Santerre—Le Quesnel—Caix—Harbonnieres.

This Blue Dotted Line was not meant to be a final objective, and the Cavalry was to exploit beyond it should the opportunity occur.

The average depth of penetration necessary to capture the Blue Dotted Line approximated to 14,000 yards.

The Ground.—The greater part of our forward area consisted of bare slopes exposed to enemy observation from the high ground south of the River Luce and east of Hourges; the trenches were very rudimentary.

On the right the River Luce and the marshes, varying on that portion of the front from 200 to 300 yards wide, created an obstacle impassable to troops. Here the only practicable access to the jumping-off line was by the bridge and the road from Domart to Hourges—a narrow defile about 200 yards long. This was commanded absolutely from the high ground immediately to the east, and more particularly from Dodo Wood and Moreuil Wood.

These conditions rendered the assembly of troops prior to the attack very difficult, while the siting of the forward field batteries was not an easy task.

Some distance west of the front line a small number of woods, villages and sunken roads afforded a certain amount of cover from view. Gentelles Wood in particular was used very extensively for the assembly of Tanks as well as troops.

Opposite our front the ground consisted of a rolling plateau cut diagonally by the deep valley of the River Luce. This river flows almost due west through a strip of wooded marsh land some 300 yards wide, from which the sides of the valley rise steeply. Numerous ravines running generally north and south cut deep into the plateau, the ground between these ravines forming, as it were, tactical features difficult of access and more or less inter-supporting. Woods and copses are scattered over the area, and many compact and well-built villages surrounded by gardens and orchards formed conspicuous landmarks. The remainder was open, unfenced farm land, partly covered with fields of standing grain.

The hostile defences consisted chiefly of unconnected elements of trenches, and a vast number of machine gun posts scattered here and there, forming a fairly loose but very deep pattern.

The Troops.—In addition to the four Canadian Divisions, the following troops were placed under Canadian Corps for the operation:—

5th Squadron, R.A.F.4th Tank Brigade.3rd Cavalry Division.

A mobile force was organised consisting of the 1st and 2nd Canadian Motor Machine Gun Brigades, the Canadian Corps Cyclist Battalion, and a section of 6-in. Newton Mortars mounted on motor lorries. This force was named the Canadian Independent Force, placed under the command of Brigadier-General R. Brutinel, and given the task of co-operating with the Cavalry in the neighbourhood of the Amiens-Roye Road, covering the right flank of our right division and maintaining liaison with the French.

I was notified that two British Divisions were held in Army Reserve, and could be made available in the event of certain situations developing.

The total Artillery at my disposal amounted to 17 Brigades of Field Artillery and nine Brigades of Heavy Artillery, plus four additional batteries of long-range guns.

The enemy troops were believed to consist of 24 battalions (less than three divisions) in the forward area and about six battalions in support, the latter belonging to Divisions on the French front, but known to be situated within the area we were to attack. It was believed that the enemy had four Divisions in reserve immediately available, and that two of these were west of the Hindenburg Line.

The Scheme of Attack.—The general scheme of attack was to overrun rapidly the enemy's forward area to a depth of about 3,600 yards under cover of a dense artillery barrage which would begin at zero hour; then without halting to seize the Red Line, relying on the help of Tanks to overcome the machine gun defences. At that moment the Cavalry was to pass through the Infantry and seize the area as far as the Blue Dotted Line, supported on its right flank by the Canadian

Independent Force. The Cavalry was to be followed as quickly as possible by the 4th Canadian Division, passing through the 3rd Canadian Division on the right, and by Reserve Brigades of the 1st and 2nd Canadian Divisions in the centre and on the left. Every effort was to be made to exploit success wherever it occurred. Special arrangements had been made to support the attack beyond the Green Line as long as possible with Heavy Artillery, and sections of Field Artillery were detailed to advance in close support of the attacking Infantry.

The attack had been synchronised with the Australians, who were to jump off at the same hour as the Canadian Corps. The First French Army was to submit the Bois de Moreuil to a 45-minute bombardment before developing Infantry action, but the General Officer Commanding had agreed that the bombardment should only begin at zero hour.

The Canadian Corps being, as it were, the spearhead of the attack, the movements of other formations were to be synchronised with ours.

At 10.00 a.m. on the morning of August 5 I took over command of the battle front, then held by the 4th Australian Division. During the hours of darkness on the 4th, 5th, 6th and 7th the attacking Canadian troops relieved the Australian troops, with the exception of those holding the outpost line, who remained in position until the night 7th/8th.

Dispositions.—The dispositions of the Canadian Corps on the morning of the 8th at zero hour were as follows:—

On the right—the 3rd Canadian Division, in liaison with the French.

In the centre—the 1st Canadian Division.

On the left—the 2nd Canadian Division, in liaison with the Australians.

In Reserve—behind the 3rd Canadian Division—the 4th Canadian Division.

Each of these Divisions had their allotment of Tanks. East of the Noye River, the 3rd Cavalry Division. Behind Gentelles Wood, the Canadian Independent Force.

The Battle.—At 4.20 a.m., August 8, the initial assault was delivered on the entire Army front of attack, and the First French Army opened their bombardment.

The attack made satisfactory progress from the outset on the whole front. (See Sketch No. 9.)

East of Hourges, opposite the 3rd Canadian Division, the high ground which dominated our front and a portion of the French front had been seized quickly by the 9th Canadian Infantry Brigade (Brigadier-General D. M. Ormond), and the way was opened for the Canadian Independent Force and the 4th Canadian Division.

The very complete arrangements made by the 3rd Canadian Division to keep the bridge open, and to repair the road quickly, allowed the reserves to go forward without delay. The heavy task of the Engineers was remarkably well carried out.

By the afternoon the Canadian Corps had gained all its objectives, with the exception of a few hundred yards on the right in the vicinity of Le Quesnel, where stiff resistance was offered by unexpected reserves, but this was made good the following morning. The day's operations, in which the four Canadian Divisions took part, represented a maximum penetration of the enemy's defences of over eight miles, and included the capture of the following villages:—Hangard, Demuin, Beaucourt, Aubercourt, Courcelles, Ignaucourt, Cayeux, Caix, Marcelcave, Wiencourt, l'Equipee, and Guillaucourt. In addition to these, the Canadian Independent Force assisted the French in the capture of Mezieres, which was holding up their advance.

The surprise had been complete and overwhelming. The prisoners stated that they had no idea that an attack was impending, and captured documents did not indicate that any of our preparations had been detected. The noise of our Tanks going to the final position of assembly had been heard by some men and reported, but no deduction appears to have been made regarding this. An officer stated that the Canadians were believed to be on the Kemmel front.

On the following day, the 9th, the advance was continued with the 3rd, 1st, and 2nd Canadian Divisions in the line, the 4th Canadian Division being held in Corps Reserve. Substantial progress was made, and by evening the average depth of our advance was about four miles, with a maximum of $6\frac{1}{2}$ miles at some points. The following additional villages were captured: Le Quesnel, Folies, Bouchoir, Beaufort, Warvillers, Rouvroy, Vrely, Meharicourt and Rosieres.

The Infantry and Tanks of the 3rd Canadian Division and the Canadian Independent Force co-operated with the French in the capture of Arvillers.

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During the day the enemy's resistance stiffened considerably, and whatever gains were made resulted from heavy Infantry fighting against fresh troops, with only a few Tanks available for support.

This advance had brought our troops into the area of the trenches and defences occupied prior to the Somme operations in 1916. These trenches, while not in a good state of repair, were, nevertheless, protected by a considerable amount of wire, and lent themselves readily to a very stubborn machine gun defence.

The attack was continued on the morning of the 10th, with the 3rd Canadian Division on the right and the 4th Canadian Division on the left, the 1st and 2nd Canadian Divisions being held in Corps Reserve. After the 3rd Canadian Division had taken the village of Le Quesnoy-en-Santerre, the 32nd Division, which had come under the Canadian Corps on the night 9th/10th, and had been ordered to relieve the 3rd Canadian Division, passed through it and advanced the line somewhat further through the old British trenches west of Parvillers and Damery. The 4th Canadian Division during the day succeeded, after very hard fighting, in occupying Fouquescourt, Maucourt, Chilly and Hallu.

During the night 10th/11th a strong enemy counterattack developed against a part of the front of the 4th Canadian Division east of Hallu.

This counter-attack was beaten off, but owing to general conditions the line at that point was slightly withdrawn to the railway embankment immediately to the west of Hallu. Subsequent upon this slight withdrawal, and with a view to reducing the existing salient forward of Chilly, the line was further withdrawn to the eastern outskirts of that village.

On the 11th, at 9.30 a.m., the 32nd Division launched an attack against Damery, but was not successful. The 4th Canadian Division improved their line by advancing it locally to reduce the Chilly salient, which was still very pronounced.

During the night 11th/12th the 32nd Division and 4th Canadian Division were relieved by the 3rd and 2nd Canadian Divisions respectively.

It now became increasingly apparent that strong enemy reserves had been sent forward to stem our advance. Six fresh Divisions and a large number of light and heavy batteries had been brought in, and were fighting hard in a strongly entrenched defensive position.

I considered that it was inadvisable to try to progress mainly by Infantry fighting, and recommended that the operations should be slackened to give time to organise a set piece attack on a broad front.

I further suggested that rather than expose the Canadian Corps to losses without adequate results it should be withdrawn from this front, rested for a few days, and used to make another surprise attack in the direction of Bapaume.

Plans to organise a set piece attack to take place on August 15 or 16, and having for its objective the Roye-Liencourt-Omiecourt Road, were prepared. This operation was to be carried out in conjunction with the French and the Australian Corps.

The 12th, 13th and 14th were characterised chiefly by patrol encounters and local trench fighting. The 3rd Canadian Division cleared the network of trenches between Fouquescourt and Parvillers, and advanced the line as far as the northern and western edge of Parvillers and Damery. These two villages were captured in the evening of the 15th, and were held in spite of heavy counter-attacks. Bois de Damery was also taken, and this enabled the French to capture the important position known as Bois-en-Z.

On the nights 15th, 16th, and 16th/17th the 1st Canadian Division relieved the 3rd Canadian Division, the latter being withdrawn to Corps Reserve.

Progress was made during the 16th/17th, the enemy being driven out of Fransart by the 4th Canadian Infantry Brigade (Brig.-General R. Rennie) of the 2nd Canadian Division, and out of La Chavatte by the 1st Canadian Division, our line on the right being advanced in co-operation with the French.

The relief of the 2nd Canadian Division by the 4th Canadian Division was carried out on the nights 15th/16th and 16th/17th, the former being withdrawn to Corps Reserve on the 17th.

The operation, which had been projected for August 16, had been postponed, and it had been decided to transfer the Canadian Corps back to the First Army, the move to begin by strategical trains on the 19th.

The 18th was quiet along the front, but on the 19th the 4th Canadian Division carried out a minor operation near Chilly, which greatly improved our line in that neighbourhood. Four hostile counter-attacks to recover the newly-won ground were beaten off during the night.

On the 19th, the 2nd and 3rd Canadian Divisions started their move to First Army, and on the night 19th/20th the relief of the 1st Canadian Division by the French commenced.

This relief was completed on the 22nd, and the 1st Canadian Division was placed in Corps Reserve.

On the 22nd I handed over command of the Canadian Corps front, and of the 1st and 4th Canadian Divisions, 2nd Canadian Motor Machine Gun Brigade, the 8th Army Brigade, C.F.A., and the C.C.H.A., to the G.O.C., Australian Corps, and my Headquarters moved north to Hautecloque, opening there at 10.00 a.m. on the same day.

Between August 8 and 22 the Canadian Corps fought against 15 German Divisions: of these 10 were directly engaged and thoroughly defeated, prisoners being captured from almost every one of their battalions; the five other Divisions, fighting astride our flanks, were only partially engaged by us.

In the same period the Canadian Corps captured 9,131 prisoners, 190 guns of all calibres, and more than 1,000 machine guns and trench mortars.

The greatest depth penetrated approximated to 14 miles, and an area of over 67 square miles containing 27 towns and villages had been liberated.

The casualties suffered by the Canadian Corps in the 14 days' heavy fighting amounted to—

	Officers	Other Ranks
Killed	 126	 1,688
Missing	 9	 436
Wounded	 444	 8,659
Total	 579	 10,783

Considering the number of German Divisions engaged, and the results achieved, the casualties were very light.

Following the deep advance effected on August 8 and 9, the French Third Army attacked at 4.20 a.m. on the 10th astride the Paris-Roye Road, and advanced rapidly in the general direction of Roye. The French First Army extended the front of attack, and capturing Montdidier pushed on also in the general direction of Roye.

On the 20th the front of attack was further extended west of Soissons in the direction of Noyon.

The battle was now in full swing on the centre and southern parts of the Somme salient. North of the Somme the British Third Army made some local attacks on the 21st, and on the 24th attacked heavily on a broad front in the direction of Bapaume.

On the whole Somme salient the Germans were retiring slowly, fighting a stubborn rearguard action, actively pressed everywhere by the Allied Armies. (See Sketch No. 9a.)

Transfer to First Army Area.—The transfer of the Canadian Corps to the First Army area was effected without serious difficulty and in a very short time.

As already stated, the 2nd and 3rd Canadian Divisions entrained and embussed in the Boves area on the nights 19th/20th and 20th/21st August respectively. They detrained and debussed on the 20th and 21st in the Bouquemaison area, whence they proceeded by route march to the Etrun and Hermaville areas.

Passing under the XVII. Corps the 2nd Canadian Division relieved, on the nights 22nd/23rd and 23rd/24th part of the 15th Division in the line in the Neuville Vitasse-Telegraph Hill sector, the G.O.C. 2nd Canadian Division assuming command of that front at 9.30 p.m., August 23.

Headquarters, Canadian Corps, moved from Hautecloque to Noyelle Vion on the 23rd, and at 12 noon that day I assumed command of the XVII. Corps front, extending from Neuville Vitasse to Gavrelle, the 15th and 51st (British) Divisions coming under my orders.

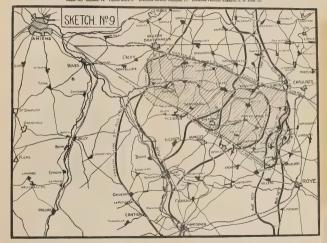
On the night 23rd/24th the 3rd Canadian Division relieved the balance of the 15th Division in the line from the Arras-Cambrai Road to the Scarpe River, immediately on the left of the 2nd Canadian Division; the command of this centre sector passing to the G.O.C. 3rd Canadian Division on August 24 at 10.00 a.m.

On the 25th the 1st Canadian Division detrained at Tincques, Savy, and Aubigny, returning under the Canadian Corps, and the 4th Canadian Division rejoined the Corps on the 28th, having been relieved in the line on the Amiens front on the 25th by the 34th and 35th French Divisions.

General Situation.—In sympathy with the severe reverses suffered on the Marne, and consequent upon the actions now fully developed in the Somme salient, signs were not wanting that the enemy was preparing to evacuate the salient of the Lys. This evacuation began under pressure of the First Army on August 25.

ADVANCES MADE BY CANADIAN CORPS, AMIENS BATTLE .- Aug. 8th to Aug. 17th, 1918.

Area Captured, 67 sq. miles. Greatest Depth Penetrated, 14 miles. Villages Captured, 27. Privosers, 9,131 (all ranket. Guns, 190. M.Q.; & T.M.s., 1,040. Steam Rily Engaged, 4, or Total 15.









All these attacks and their results, direct or indirect, enabled the Allies to recover the ground they had lost in the course of the German offensive operations.

The recapture of that ground was, however, of secondary importance as compared to the moral results of these successive victories.

The German Armies had been impressed in the course of these operations by the superiority of our generalship and of our organisation, and by the great determination of our troops and subordinate commanders.

The Hindenburg System, however, was intact, and the enemy Higher Command hoped and believed that behind this powerfully organised area the German Armies might be collected and reorganised. (See Sketch No. 10.)

Fighting the most determined rearguard action in the Somme salient, they expected that our armies would be tired and depleted by the time they reached the forward area of the Hindenburg System.

The Battle of Cambrai, now about to be begun, shattered their hopes. By breaking through the Drocourt-Queant Line, itself but a part of the Hindenburg System, the Canadian Corps carried the operations forward to ground that had been in the hands of the Germans since 1914.

This advance constituted a direct threat on the rear of the German Armies north and south of Cambrai.

Dominated at all times, paralysed by the swift and bold strokes on vital points of their line and by the relentless pressure applied everywhere, the German Higher Command was unable to take adequate steps to localise and stop our advance. After the Drocourt-Queant Line was broken, the retreat of the enemy became more accelerated, and our attacks met everywhere with less and less organised and determined resistance.

The moral effect of the most bitter and relentless fighting which led to the capture of Cambrai was tremendous. The Germans had at last learned and understood that they were beaten.

ARRAS-CAMBRAI OPERATIONS.

The Task.—On August 22 I received the details of the operations contemplated on the First Army Front. The plan was substantially the following:—

The Canadian Corps, on the right of the First Army, was to attack eastwards astride the Arras-Cambrai Road, and by forcing its way through the Drocourt-Queant line south of the Scarpe to break the hinge of the Hindenburg System and prevent the possibility of the enemy rallying behind this powerfully organised defended area.

These operations were to be carried out in conjunction with the operation of the Third Army then in progress. This attack had been fixed for the next Sunday, August 25. It was represented that this gave barely 48 hours to concentrate the necessary Artillery, part of which was still in the Fourth Army area, and that, furthermore, the Canadian Corps had sentimental objections to attacking on the Sabbath Day. It was then agreed that the attack should take place on Monday the 26th.

On the evening of the 22nd I held a conference of Divisional Commanders at Corps Headquarters (Hautecloque), and outlined the projected operation and my plans for carrying it out.

In addition to a detailed knowledge of the ground, which we had held before, we were particularly benefited by all the reconnaissances and plans made for the capture of Orange Hill during the period of simulated activity at the end of July. The excellence of trench railways, rear communications, and administrative arrangements in the area were also of great value, and enabled the Canadian Corps to undertake to begin, with only three days' notice, the hardest battle in its history.

Reinforcements had come up, and although all Units were not up to strength, they were all in fighting condition.

The efficiency of the organisation peculiar to the Canadian Corps, and the soundness of the tactical doctrine practised, had been proved and confirmed.

Flushed with the great victory they had just won, and fortified by the experience acquired, all ranks were ready for the coming task.

The Ground.—The ground to be attacked lent itself peculiarly to defence, being composed of a succession of ridges, rivers, and canals, which formed natural lines of defence of very great strength. These natural positions, often mutually supporting, had been abundantly fortified. Their organisation was the last word in military engineering, and represented years of intensive and systematic labour. Barbed wire entanglements were formidable (see Photos A and B), machine gun positions innumerable, and large tunnels had been provided for the protection of the garrison.

PHOTO "A."



PHOTO "B."



The four main systems of defence consisted of the following lines:—

- i. The old German front system east of Monchy-le-Preux.
- ii. The Fresnes-Rouvroy line.
- iii. The Drocourt-Queant line.
- iv. The Canal du Nord line.

These, with their subsidiary switches and strong points, as well as the less organised but by no means weak intermediate lines of trenches, made the series of positions to be attacked without doubt one of the strongest defensively on the Western Front.

Broad glacis, studded with machine gun nests, defended the immediate approaches to these lines, and this necessitated in each case heavy fighting to gain a suitable jumping-off line before assaulting the main position.

In addition to these systems, and as a preliminary to the attack on the old German system east of Monchy-le-Preux, it was necessary to capture the very well organised British defences which had been lost in the fighting of March, 1918.

These defences were intact to a depth of about 5,500 yards, and were dominated by the heights of Monchy-le-Preux, from which the Germans were enjoying superior observation.

Throughout these operations there could not be any element of surprise, other than that afforded by the selection of the actual hour of the assaults. The positions to be attacked formed the pivot of the movements of the German Army to the south, and the security of the Armies to the north depended also on these positions being retained. There was consequently little doubt that the enemy was alert, and had made every disposition to repulse the expected attacks. Therefore the plan necessitated provision for very hard and continuous fighting, the main stress being laid on the continuity of the operations.

To carry this out, I decided to do the fighting with two Divisions in the line, each on a one-Brigade front, thus enabling both Divisions to carry on the battle for three successive days; the two other Divisions were to be kept in Corps Reserve, resting and refitting after each relief. (The severity of the fighting did not, however, allow this plan to be adhered to, and on many occasions the Divisions had to fight with two Brigades in the front line.) It was understood that British Divisions from

Army Reserve would be made available as soon as additional troops were required.

To maintain the utmost vigour throughout the operation, the Divisions were directed to keep their support and reserve Brigades close up, ready to push on as soon as the leading troops were expended.

As the protection of the left flank of the attack could not at the outset be dissociated from the operations of the Canadian Corps, the 51st (Highland) Division in the Gavrelle sector remained under my orders.

The initial attack on the 26th was to be launched by the 2nd Canadian Division on the right and the 3rd Canadian Division on the left.

The XVII. Corps was on our immediate right, they being the left Corps of the Third Army.

On the night of the 24th/25th the 2nd Canadian Division, in conformity with operations carried out by the Third Army on its right flank, advanced the outpost line on the outskirts of Neuville Vitasse, later capturing the sugar refinery and some elements of trenches south of that village.

That same night the 51st (Highland) Division, north of the Scarpe, advanced the outpost line opposite Greenland Hill without meeting much opposition.

The objectives for the attack of the 26th were indicated as follows:—

The 2nd Canadian Division was to capture Chapel Hill, then work south through the old British support system and join up with the British troops on the right on the northern end of the Wancourt spur, thus encircling the enemy troops in the forward area towards Neuville Vitasse. They were at the same time to push forward and capture the southern end of Monchy-le-Preux Heights.

The 3rd Canadian Division was to capture Orange Hill, then Monchy-le-Preux. The success of the advance was to be exploited as far east as possible.

The 51st (Highland) Division, north of the Scarpe, was to cover the left flank of the 3rd Canadian Division by advancing towards Mount Pleasant and Rœux.

After mature consideration, zero hour, which had been originally set at 4.50 a.m., was changed to 3.00 a.m. in order to





A remarkable photograph showing a Canadian Battalion passing through the German barrage on the Arras Front during the last great advance.

take advantage of the restricted visibility produced by moonlight and so to effect a surprise; the attacking troops would thus pass through the enemy's forward machine gun defences by infiltration, and be in position to assault at dawn his line of resistance on the eastern slopes of Orange Hill.

The initial assault was to be supported by 17 Brigades of Field and nine Brigades of Heavy Artillery, in addition to the long range guns of the Army Heavy Artillery. (Throughout the Arras-Cambrai operations the Artillery allotted to the Canadian Corps was at all times adequate, varying at times in accordance with the tasks assigned. In the operation against the Drocourt-Queant line the attack was supported by 20 Brigades of Field and 12 Brigades of Heavy Artillery.)

Troops attached to the Corps.—The following were attached to the Canadian Corps for the operations:—

5th Squadron, R.A.F. 3rd Brigade, Tank Corps.

As a result of lessons learned during the Amiens operations, it was laid down, as a general principle, that Tanks should follow rather than precede the Infantry. The 3rd Tank Brigade was asked to supply, if possible, nine Tanks to each attacking Division each day, and the necessity of exercising the greatest economy in their employment was impressed on Divisional Commanders.

The Attack—1st Phase.—On August 26, at 3.00 a.m., the attack was launched under the usual Artillery and Machine Gun barrages. It made good progress, the village of Monchy-le-Preux being entered early in the day, after a very brilliant encircling attack carried out by the 8th Canadian Infantry Brigade (Brigadier-General D. C. Draper). The trenches immediately to the east of Monchy-le-Preux were found to be heavily held, and were not cleared until about 11 a.m. by the 7th Canadian Infantry Brigade (Brigadier-General H. Dyer). (See Sketch No. 11.)

Guemappe was captured by 4 p.m. and Wancourt Tower and the top of Heninel Ridge were in our hands at 10.40 p.m. The defenders of the latter feature fought hard, but eventually succumbed to a determined attack delivered by the 6th Canadian Infantry Brigade (Brigadier-General A. H. Bell), under cover of an extemporised barrage fired by the 2nd Canadian Divisional Artillery (Brigadier-General H. A. Panet). During the night this Brigade captured, in addition, Egret Trench, thus securing a good jumping-off line for the operation of the following day.

The situation along the Arras-Cambrai Road was at one time obscure, following a change in the Inter-Divisional Boundary ordered when the attack was in progress. A gap occurred for a few hours, but it was filled as soon as discovered, by the Canadian Independent Force.

The enemy fought strenuously and several counter-attacks were repulsed at various stages of the fighting, three German Divisions being identified during the day and more than 2,000 prisoners captured, together with a few guns and many machine guns.

North of the Scarpe, the 51st (Highland) Division had pushed forward east of the Chemical Works and Gavrelle without meeting serious opposition.

The Canadian Engineers had been actively employed, and all the roads in the forward area were cleared and repaired, thus establishing good communications.

The light railways, which up to this date had been delivering an average of 1,800 tons daily, were pushed forward, closely following up the advance.

The attack was renewed at 4.55 a.m. on August 27 by the 2nd and 3rd Canadian Divisions, in the face of increased opposition, under a uniformly good initial barrage.

The 2nd Canadian Division pushed doggedly forward through the old German trench system, where very stiff hand-to-hand fighting took place, and crossed the Sensee River, after capturing the villages of Cherisy and Vis-en-Artois.

The 3rd Canadian Division encountered very heavy opposition, but succeeded in capturing Bois-du-Vert, Bois-du-Sart, and reaching the western outskirts of Haucourt, Remy, Boiry-Notre-Dame and Pelves.

The enemy throughout the day pushed a large number of reinforcements forward, bringing up Machine Gun Units in motor lorries in the face of our accurate Field and Heavy Artillery fire. Hostile Field Batteries in the open, firing over open sights, showed remarkable tenacity, several remaining in action until the personnel had been destroyed by our machine gun fire.

Our casualties were heavy, especially on the 2nd Canadian Division front, and after discussing the situation with the G.O.C., 2nd Canadian Division, and taking into consideration the uncertainty of the situation on the right flank of this

Division, the operations were, after 5.45 p.m., restricted to the consolidation of the line then reached east of the Sensee River.

North of the Scarpe, the 51st (Highland) Division had pushed forward and gained a footing on Greenland Hill, but were forced to withdraw slightly by a heavy German counterattack.

During the night August 27/28 the 8th Division (VIII. Corps) took over the northern half of the 51st Division front.

As the enemy was still holding Plouvain and the high ground north of the Scarpe, the 3rd Canadian Division had been compelled to refuse its left flank, and the front now held by this Division was increased from about 3,700 yards to about 6,000 yards.

It was intended to continue the battle on the 28th, with the 1st Canadian Division on the right and the 4th (British) Division, then coming under my command, on the left; the latter Division, however, was unable to reach the battle position in time. As it was undesirable at this stage to employ a fresh Division alongside a Division which had already been engaged, the orders issued were cancelled and the battle was continued by the Divisions then in the line.

At 9.00 a.m. on the 28th the 3rd Canadian Division resumed the attack, followed at 12.30 p.m. by the 2nd Canadian Division. The objective for the day was the capture of the Fresnes-Rouvroy line, the possession of which was vital to the success of our further operations.

On the left, the 3rd Canadian Division had pushed forward, captured the Fresnes-Rouvroy line from the Sensee River to north of Boiry-Notre-Dame, and had secured that village, Jigsaw Wood and entered Pelves. They had, however, been unable to clear the village of Haucourt.

On the front of the 2nd Canadian Division the fighting was most severe. The wire in front of the Fresnes-Rouvroy line was found to be almost intact, and although at some points the 5th Canadian Infantry Brigade (Brigadier-General T. L. Tremblay) had succeeded in penetrating the line, the first objective could not be secured, except one short length on the extreme right. Subjected to heavy machine gun fire from both flanks as well as frontally, the attacking troops had suffered heavy casualties, which they had borne with the utmost fortitude.

At nightfall the general line of the 2nd Canadian Division was little in advance of the line held the night before, although a few small parties of stubborn men were still as far forward as the wire of the Fresnes-Rouvroy line.

Enemy reinforcements were seen dribbling forward all day long.

2nd Phase.—During the days succeeding the capture of Monchy-le-Preux the enemy's resistance had been steadily increasing, and it became clear that the Drocourt-Queant line would be very stubbornly defended.

On the 28th instructions had been received fixing tentatively September 1 as the date on which the Drocourt-Queant line was to be attacked by the Canadian Corps, in conjunction with the XVII. Corps. The intention was to capture also the Canal du Nord line in the same operation.

It was therefore essential to secure, before that date, a good jumping-off line roughly parallel to, and approximately 600 yards west of, the Drocourt-Queant line.

This was indeed a very difficult task, entailing the capture of the Fresnes-Rouvroy line, of the Vis-en-Artois Switch, and of a number of defended localities of very great strength, notably the Crow's Nest, Upton Wood, and St. Servin's Farm.

The 2nd and 3rd Canadian Divisions were now exhausted, and during the night 28th/29th they were relieved by the 1st Canadian Division on the right, the 4th (British) Division (which had been placed under my orders on the night 26th/27th) on the left, and Brutinel's Brigade (formerly the Canadian Independent Force) on the extreme left flank.

The Heavy Artillery from now on concentrated on the cutting of the broad belts of wire in front of the Drocourt-Queant line, and the Engineers prepared the bridging material required for the crossings of the Sensee River and the Canal du Nord.

During the day (August 29) our line had been considerably improved by minor operations. Brutinel's Brigade had pushed forward on their front and captured Bench Farm and Victoria Copse, north of Boiry-Notre-Dame. The 4th (British) Division, in the face of strong opposition, had advanced their line in the vicinity of Haucourt and Remy. North of the Scarpe the 51st Division had captured the crest of Greenland Hill.

The command of the 51st Divisional front now passed to the G.O.C. XXII. Corps; and during the night August 29/30

the 11th Division, which had been transferred to the Canadian Corps from I. Corps, relieved Brutinel's Brigade in the line, the command of that Division also passing to the G.O.C. XXII. Corps on completion of the relief.

This shortened the line considerably and relieved me of the anxiety caused by the length and vulnerability of the northern flank.

On the 30th, following the reported capture of Hendecourt by the 57th Division, the 1st Canadian Division attacked the Vis-en-Artois Switch, Upton Wood, and the Fresnes-Rouvroy line south of the Vis-en-Artois Switch. The attack, a daring manœuvre organised and carried out by the 1st Canadian Infantry Brigade (Brigadier-General W. A. Griesbach), under cover of very ingenious barrages arranged by the C.R.A., 1st Canadian Division (Brigadier-General H. C. Thacker), was eminently successful, all objectives being captured and the entire garrison either killed or taken prisoner. Heavy counterattacks by fresh troops were repulsed during the afternoon and following night.

On the 31st the remainder of the Fresnes-Rouvroy line south of the Arras-Cambrai Road, including Ocean Work, was captured by the 2nd Canadian Infantry Brigade (Brigadier-General F. O. W. Loomis).

In the meantime the 4th (British) Division had doggedly pushed ahead, crossing the valley of the Sensee River and capturing the villages of Haucourt, Remy, and Eterpigny. This advance was over very difficult, thickly wooded country, and the fighting was very heavy, particularly in the vicinity of St. Servin's Farm, which, after changing hands several times, remained in possession of the enemy until September 2.

On the night August 31-September 1 the 4th Canadian Division came into the line on a one-Brigade front between the 1st Canadian Division and 4th (British) Division.

The G.O.C. 4th (British) Division having now reported that he considered his Division unable successfully to attack the Drocourt-Queant line on the front allotted to him, in view of the losses suffered in the preliminary fighting for the jumping-off line, I decided that the 4th Canadian Division would extend their front and take over 1,000 yards additional frontage from the 4th (British) Division. This necessitated a change of plan on the part of the 4th Canadian Division, who a few hours before zero had to place an additional Brigade in the line for the

initial assault. Accordingly, the 12th Canadian Infantry Brigade (Brigadier-General J. H. McBrien) carried out the attack on the right and the 10th Canadian Infantry Brigade (Brigadier-General R. J. F. Hayter) on the left Divisional front, having first advanced the line to conform with the 1st Canadian Division.

It was necessary to postpone the attack on the Drocourt-Queant line until September 2 on account of the additional wire cutting which was still required, and the day of September 1 was employed in minor operations to improve the jumping-off line for the major operation.

The important strong point known as the Crow's Nest was captured by the 3rd Canadian Infantry Brigade.

During the afternoon and evening of September 1 the enemy delivered violent counter-attacks, directed against the junction of the 1st and 4th Canadian Divisions. Two fresh Divisions and two Divisions already in the line were identified in the course of this heavy fighting. Our troops were forced back slightly twice, but the ground was each time regained and finally held. The hand-to-hand fighting for the possession of the crest of the spur at this point really continued until zero hour the next day, the troops attacking the Drocourt-Queant line as they moved forward, taking over the fight from the troops then holding the line.

At 5.00 a.m., September 2, the major operation against the Drocourt-Queant line was launched. Preceded by a dense barrage, and assisted by Tanks, the Infantry pushed forward rapidly, and the Drocourt-Queant line (the first objective) and its support line (the second objective) including the village of Dury were captured according to programme. With the capture of the second objective the Field Artillery barrage was shot out, and the attack further east had to be carried forward without its assistance. The enemy's resistance, free of the demoralising effect of our barrage, stiffened considerably, the open country being swept continually by intense machine gun fire. In addition, the Tanks soon became casualties from enemy guns firing point blank, and the advance on the left and centre was held up.

Brutinel's Brigade, reinforced by a Regiment of Cavalry (10th Royal Hussars) and armoured cars, endeavoured to pass through to capture the Marquion Bridge on the Canal du Nord. Wire, trenches, and sunken roads, however, confined the

movements of the force to the Arras-Cambrai Road; and this was rendered impassable by machine gun fire and by batteries firing over open sights.

On the right, however, the 1st Canadian Division pushed forward despite very heavy machine gun and direct artillery fire, and captured the villages of Cagnicourt and Villers-lez-Cagnicourt, the Bois de Bouche and Bois de Loison to the east of Cagnicourt.

> "Taking advantage of the breach thus made by the Canadian Divisions, a Brigade of the 63rd (Naval) Division, XVII. Corps, which had followed the attack behind the right Brigade of our right Division, now turned south and advanced in the direction of Queant."

Further progress made by the 1st Canadian Division in the afternoon resulted in the capture of the heavily wired Buissy Switch line as far south as the outskirts of Buissy; this largely outflanked the enemy still holding out in front of the 4th Canadian Division, and compelled their retirement during the night behind the Canal du Nord.

Although the crossings of the Canal du Nord had not been captured, the result of the day's fighting was most gratifying. The Canadian Corps had pierced the Drocourt-Queant line on its whole front of attack, and the exploitation of our success attack by the XVII. Corps on the right had further widened the breach and made possible the capture of a large stretch of territory to the south.

To stem our advance, and hold the Drocourt-Queant line, the enemy had concentrated eight fresh Divisions directly opposite the Canadian Corps, but the unparalleled striking power of our Battalions and the individual bravery of our men had smashed all resistance.

The number of unwounded prisoners captured exceeded 5,000, and we had identified every Unit of the seven Infantry Divisions and the one Cavalry Division engaged.

Our Infantry had penetrated the enemy's defences to a depth exceeding 6,000 yards.

In prevision of the attack on the Canal du Nord taking place the same day, the Engineers had rapidly prepared the bridges and roads, advanced the light railways, and pushed forward the personnel and all material necessary for future construction. During the night of September 2/3 the 4th (British) Division, by a minor operation, captured the village of Etaing without

serious opposition.

At dawn our Infantry pushed forward strong patrols, and meeting very slight resistance from the enemy contact patrols established a line just west of the Canal along the Corps front, freeing the villages of Buissy, Baralle, Saudemont, Rumaucourt, Ecourt St. Quentin, and Lecluse. A certain number of French civilians were liberated during this advance.

The enemy had blown up all the bridges on the previous night, and was holding a commanding position on the eastern bank of the Canal with a large number of machine guns. His Artillery was very active, more especially from the north, and it was impossible to send bodies of troops by daylight over the long and bare slopes bordered by the Canal.

Our left flank was now very exposed to Artillery fire from the north, and the nature of the ground we were holding, the strength of the obstacle in front of the Corps, and the resolute attitude of the enemy, forbade any attempt to further exploit our success.

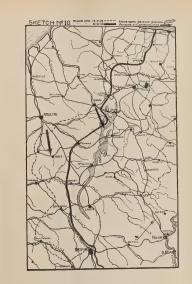
It was necessary to prepare minutely the details of the operations required to attack successfully the Canal du Nord line. Accordingly, no further attempts were made at this time.

In the night of September 3/4 the 2nd and 3rd Canadian Divisions relieved the 1st and 4th Canadian Divisions respectively, and the 4th (British) Division was relieved by the 1st (British) Division, which had come under the Canadian Corps on September 1 and had been concentrated after that date in the Monchy-le-Preux, Vis-en-Artois, Guemappe area.

3rd Phase.—The left flank of the Corps was again very long, and in accordance with the policy adopted the 1st (British) Division was transferred in the line from the Canadian Corps to the XXII. Corps. I handed over command of that sector—extending from Palluel (exclusive) to Etaing (inclusive), and facing north—to the G.O.C. XXII. Corps at midnight, September 4/5.

The enemy had flooded the valley of the Sensee River and all the bridges had been destroyed. Our Engineers were very actively engaged in an effort to lower these floods and wrest the control from the enemy.

On the right flank the XVII. Corps was engaged in heavy fighting in and around Mœuvres, and all their attempts to cross the Canal du Nord at that point had been repulsed.





A thorough reconnaissance of our front had shown that the frontal attack of the Canal du Nord line was impossible, the eastern bank of the Canal was strongly wired and was generally much higher than the western bank.

The whole of our forward area was under direct observation from Oisy-le-Verger and the high ground on the northern flank, and any movement by day was quickly engaged by hostile artillery.

No battery positions within a range sufficient to carry on the preparation of the attack, or to support it, were available, and any attempt to bring guns forward of the general line Villers-lez-Cagnicourt-Buissy was severely punished; the battery positions south and west of this general line were subjected to intense gas shelling every night.

The Canal du Nord was in itself a serious obstacle. It was under construction at the outbreak of the war and had not been completed. Generally speaking, it followed the valley of the River Agache, but not the actual bed of the river. The average width was about 100 feet and it was flooded as far south as the lock, 800 yards south-west of Sains-lez-Marquion, just north of the Corps southern boundary. South of this and to the right of the Corps front the Canal was dry, and its bottom was at the natural ground level, the sides of the Canal consisting of high earth and brick banks.

The attack of the Canal Du Nord could not, therefore, be undertaken singly by the Canadian Corps, but had to be part of a larger scheme.

This required considerable time to arrange, and until September 27 no changes developed on the Corps front.

The obstacles which had stopped our advance also made our positions very strong defensively, and advantage was taken of this fact to rest and refit the Divisions. As much of the Corps Artillery as could be spared was withdrawn from the line to rest the men and horses.

The line was held very thinly, but active patrolling at nights and sniping were kept up. A complete programme of harassing fire by Artillery and Machine Guns was also put in force nightly. The Corps Heavy Artillery (Brigadier-General R. H. Massie) carried out wire-cutting, counter-battery shoots and gas concentrations daily, in preparation for the eventual operations.

Light railways, roads, bridges and water-points were constructed right up to the forward area, and the bridging material which would be required for the Canal du Nord was accumulated well forward. Ammunition dumps were established at suitable places.

Detailed reconnaissances of the Canal and trenches were carried out by aeroplane, and also by daring patrols, and all available documents regarding the Canal construction were gathered with a view to preparing the plans for the future attack.

On September 13 Major-General (then Brigadier-General) F. O. W. Loomis took over command of the 3rd Canadian Division from Major-General L. J. Lipsett, who went to command the 4th (British) Division; the former was succeeded in command of the 2nd Canadian Infantry Brigade by Brigadier-General (then Lieut.-Colonel) R. P. Clark.

The Task.—On September 15 I received the details of a large operation to be carried out later in the month by the Third and Fourth Armies, in which the Canadian Corps was to co-operate by crossing the Canal, and by capturing Bourlon Wood and the high ground to the north-east of it, to protect the left flank of the attack.

The XXII. Corps on the left was to take over the front held by the Canadian Corps to a point 1,200 yards north of the Arras-Cambrai Road, and the Canadian Corps was to take over part of the front held by the XVII. Corps (Third Army) as far as Mœuvres (exclusive), which was to be the Canadian Corps right boundary for the attack.

"By this side-slip to the south the right of the Canadian Corps was to be placed opposite a dry portion of the Canal du Nord on a front of about 2,500 yards. The Germans were then holding in strength a strip of ground on the west side of the canal, and every effort made by the XVII. Corps to clear this ground and reach the Canal banks had been repulsed."

On September 22 the task of the Corps was enlarged so as to include, in addition to the objectives already mentioned, the capture of the bridges over the Canal-de-l'Escaut, north of Cambrai, and the high ground overlooking the Sensee Valley. The right boundary was not altered. To assist in carrying out the above additional task, the 11th Division and the 7th Tank Battalion were placed under my orders.

The date of this operation was definitely fixed for September 27, 1918, at dawn.

It was decided that the 4th and 1st Canadian Divisions would carry out the initial attack, capture the villages of Bourlon and Marquion respectively, and immediately thereafter seize Bourlon Wood and bring the line up to the high ground north of Bourlon Wood and east of Bois-de-Cocret and Dartford Wood.

At this stage the 3rd Canadian Division would pass through the right of the 4th Canadian Division and advance from a line east of Bourlon Wood in an easterly direction towards Neuville-St. Remy, in liaison with the XVII. Corps.

The 11th Division was to come up on the left of the 1st Canadian Division and advance in a north-easterly direction towards Epinoy and Oisy le Verger. The 4th Canadian Division on the right centre was to advance towards Blecourt and the 1st Canadian Division on the left centre was to advance in the direction of Abancourt.

This attack was fraught with difficulties. On the Corps battle-front of 6,400 yards the Canal du Nord was impassable on the northern 3,800 yards. The Corps had, therefore, to cross the Canal du Nord on a front of 2,600 yards, and to expand later fanwise in a north-easterly direction to a front exceeding 15,000 yards. This intricate manœuvre called for most skilful leadership on the part of commanders, and the highest state of discipline on the part of the troops.

The assembly of the attacking troops in an extremely congested area known by the enemy to be the only one available was very dangerous, especially in view of the alertness of the enemy. A concentrated bombardment of this area prior to zero, particularly if gas was employed, was a dreaded possibility which could seriously affect the whole of the operation and possibly cause its total failure.

To meet such an eventuality careful arrangements were made by the counter-battery staff officer to bring to bear a specially heavy neutralising fire on hostile batteries at any moment during the crucial period of preparation. These arrangements were to be put into effect, in any case, at zero hour, to neutralise the hostile defensive barrage on the front of attack.

With the exception of the 2nd Canadian Division which was now holding the entire front, and would be in Corps

Reserve at the time of the attack, every resource of the Canadian Corps was to be crowded in that narrow space.

The provision of an effective Artillery barrage presented considerable difficulty owing to the depth of the attack and its general direction. On the 4th Canadian Division front particularly, the depth to the initial objective was such that the batteries were compelled to move forward into captured ground and continue firing the barrage from these new positions. Provision was made for the advance of a number of batteries with their Echelons to the Canal line and beyond whilst the attack was in progress.

A large number of Machine Gun batteries were detailed to supply the initial barrage and, later, to advance in support of the Infantry.

Provisions were also made for Engineer Units to move forward immediately following the assaulting troops, to effect immediate repair to the roads and crossings of the Canal in order to enable the Artillery to move up in support of the Infantry.

The greatest precautions had been taken to ensure secrecy, and camouflage had been used extensively to prevent detection of the preparations of all kinds that were in progress.

Further to conceal our intentions, it was decided that no preliminary fighting to secure a jumping-off line would take place, and that the Germans would be left in possession of their positions west of the Canal until the hour of the attack. It was also hoped that, by letting the Germans retain this ground, their defensive barrage would remain well west of the Canal instead of being placed on the Canal itself, where the banks offered a serious obstacle and reduced very considerably the rate of advance of the assaulting troops.

On our right the XVII. Corps was to advance and capture Fontaine-Notre-Dame, in conjunction with the capture of Bourlon Wood by the 4th Canadian Division.

On the night September 25/26 the XXII. Corps on the left took over the front as far south as the Arras-Cambrai Road, and arranged to extend the Artillery and Machine Gun barrage to their front so as to deceive the enemy regarding actual flanks of the attack.

The 4th and 1st Canadian Divisions went into the line on their respective battle fronts.

The 2nd Canadian Division; on completion of the relief, passed into Corps Reserve.

During the night September 26/27 all final adjustments and moves were made, and everything was ready before zero hour.

This was for everybody a night full of anxiety, but apart from the usual harassing fire and night bombing nothing untoward happened.

The Attack.—At 5.20 a.m., September 27, the attack was successfully launched, and in spite of all obstacles went well from the first.

The barrage was uniformly good, and the 3rd and 4th Canadian Divisional Artilleries, commanded respectively by Brigadier-General J. S. Stewart and Brigadier-General W. B. M. King, were successful in advancing into captured ground, and continued the barrage as planned.

Early in the afternoon the First Phase of the attack was substantially over, and the readjustments of the fronts preparatory to the Second Phase were under way.

On the extreme right, however, the XVII. Corps had failed to keep pace with our advance, and our right flank, submitted to severe enfilade Machine Gun fire from the vicinity of Anneux, had to be refused for a considerable distance to retain touch with the left of the XVII. Corps; therefore, the encircling movement which was to have given us Bourlon Wood could not be developed.

Fully alive to the gravity of the situation which would be created on the flank of the Third Army by the failure to capture and hold Bourlon Wood the 4th Canadian Division attacked from the north side of the Wood and captured all the high ground, pushing patrols as far as Fontaine-Notre-Dame.

"It is recalled here that Bourlon Wood, which is 110 metres high, dominates the ground as far south as Flequieres and Havrincourt; and that its loss after very heavy fighting in November, 1917, during the first battle of Cambrai, caused eventually the withdrawal of the Third Army from a large portion of the ground they had won by their surprise attack."

A severe counter-attack launched from the direction of Raillencourt, against the left of the 4th Canadian Division, was repulsed in the afternoon with heavy losses to the enemy.

the 11th Brigary Odlum

Owing to the situation on our right flank, already explained the 3rd Canadian Division could not be engaged this day. The 1st Canadian Division and the 11th (British) Division, however, made substantial gains after the commencement of the Second Phase, the former capturing Haynecourt and crossing the Douai-Cambrai Road, and the latter pushing on and taking Epinoy and Oisy-le-Verger by evening.

The attack was continued on the 28th. The 3rd Canadian Division captured Fontaine-Notre-Dame (one of the XVII. Corps objectives), and, penetrating the Marcoing line, reached the western outskirts of St. Olle. The 4th Canadian Division captured Raillencourt and Sailly, and the 11th (British) Division established posts in Aubencheul-au-Bac and occupied the Bois-de-Quesnoy. The 1st Canadian Division, in view of their advance of the previous day which had produced a considerable salient, did not push forward.

Heavy fighting characterised the 29th. The 3rd Canadian Division, the 4th Canadian Division, and the 1st Canadian Division all made progress in the face of severe opposition. The 3rd Canadian Division pushed the line forward to the junction of the Arras and Bapaume Road, the western outskirts of Neuville St. Remy and the Douai-Cambrai Road. They also cleared the Marquion line from the Bapaume-Cambrai Road southwards towards the Canal de l'Escaut. trenches were in the XVII. Corps area, but it was difficult for our attack to progress leaving on its flank and rear this strongly held position. The 4th Canadian Division captured Sancourt, crossed the Douai-Cambrai Railway and entered Blecourt, but later withdrew to the line of the railway in the face of a heavy counter-attack. The necessity for this withdrawal was accentuated by the situation on the left. The 11th Division, in spite of two attempts, had been unable to occupy the high ground north-east of Epinoy. This had interfered materially with the progress of the 1st Canadian Division, and had prevented their holding positions gained early in the day in the neighbourhood of Abancourt Station, the relinquishment of which, in turn, endangered the flank of the 4th Canadian Division.

The operation of the 30th was planned in two phases. In the first, the 3rd and 4th Canadian Divisions were to push forward across the high ground between the Canal de l'Escaut and the Blecourt-Bantigny Ravine, when Brutinel's Brigade was to pass through them and secure bridgeheads at Ramillies and Eswars. The second phase, to take place on the success of the first, provided for the seizing of the high ground overlooking the Sensee River by the 1st Canadian Division and 11th (British) Division. The attack commenced well, and the villages of Tillov and Blecourt were captured by the 3rd and 4th Canadian Divisions respectively. A heavy counterattack, however, against the 4th Canadian Division and the left flank of the 3rd Canadian Division, assisted by exceptionally severe enfilade fire from the high ground to the north of the Blecourt-Bantigny Ravine, forced the line on the left back to the eastern outskirts of Sancourt. The second phase of the attack was not carried out, and the net gains for the day were the capture of Tilloy and some progress made on the right of the 3rd Canadian Division from Neuville St. Remy south. Prisoners taken during the day testified to the supreme importance, in the eyes of the enemy, of the positions held by him and the necessity that they be held at all costs.

The tremendous exertions and considerable casualties consequent upon the four days' almost continuous fighting had made heavy inroads on the freshness and efficiency of all arms, and it was questionable whether an immediate decision could be forced in the face of the heavy concentration of troops which our successful and, from the enemy's standpoint. dangerous advance, had drawn against us. On the other hand, it was known that the enemy had suffered severely, and it was quite possible that matters had reached a stage where he no longer considered the retention of this position worth the severe losses both in men and moral consequent upon a continuance of the defence. It was therefore decided that the assault would be continued on October 1, the four Divisions in line attacking simultaneously under a heavy barrage, coordinated by the G.O.C., R.A. During the night the XXII. Corps took over a portion of the front held by the 11th Division, the 56th Division becoming responsible for the defence of the relieved front at 6.00 a.m., October 1.

The attack made excellent progress in the early stages, and the troops reached the general line Canal de l'Escaut (east of Neuville St. Remy) - Morenchies Wood - Cuvillers-Bantigny (all inclusive).

The decision of the enemy to resist to the last quickly manifested itself. About 10.00 a.m. heavy counter-attacks developed up the Bantigny Ravine from the direction of Paillencourt. These, supplemented by enfilade fire from the high ground just south

of Abancourt, which still remained in the enemy's hands, due to a certain extent to the inability of the 11th Division on the left to make progress, were sufficient to press back our advanced troops. Pockets of the enemy in Blecourt and Bantigny continued to give trouble, and our line was ultimately forced by greatly superior numbers out of Cuvillers, Bantigny and Blecourt.

To continue to throw tired troops against such opposition, without giving them an opportunity to refit and recuperate, was obviously inviting a serious failure, and I accordingly decided to break off the engagement. The five days' fighting had yielded practical gains of a very valuable nature, as well as 7,059 prisoners and 205 guns.

We had gone through the last organised system of defences on our front, and our advance constituted a direct threat on the rear of the troops immediately to the north of our left flank, and their withdrawal had now begun.

Although the ground gained on the 1st was not extensive, the effects of the battle and of the previous four days' fighting were far-reaching, and made possible the subsequent advances of October and November, in so far as the Divisions engaged against the Canadian Corps drew heavily on the enemy's reserves, which had now been greatly reduced.

It is worthy of note that the enemy employed six Divisions to reinforce the four Divisions already in the line, making a total of ten Divisions engaged since September 27 by the Canadian Corps. In addition to their 10 Divisional Artilleries and large number of heavy guns, these German Divisions had been reinforced by 13 Marksmen Machine Gun Companies.

In the same period only three additional Divisions and one Regiment were employed by the Germans to reinforce the front from Honnecourt to Cambrai, a front of approximately 18,000 yards in length.

This comparison of employment of reserves showed clearly that the enemy was greatly perturbed by the success of our advance, and the serious threat it offered especially to his northern defences.

Throughout this phase very heavy calls had been made on the Corps Artillery (Major-General E. W. B. Morrison) and the Canadian Engineers.

With the exception of the advances of the 1st Canadian and 11th (British) Divisions in the second stage of the attack

of September 27, all operations carried out during the five days took place under cover of Artillery barrages. The amount of ammunition fired was exceptionally large, and it was only by the most strenuous efforts on the part of all ranks of the Artillery that the supply could be made to keep pace with the expenditure.

The success in this respect was to a large extent due to the exertion and skill displayed by the Canadian Engineers (Major-General W. B. Lindsay) in every branch of their activities, notably in bridge-building and repair of roads. The enemy had set a large number of Tank mines and "booby traps," and in one sector alone the Engineers removed over 200 Tank mines, thus greatly facilitating the operation in progress.

4th Phase.—The 2nd Canadian Division had been in close support throughout the day, and during the night October 1/2 relieved the 4th Canadian Division and parts of the 3rd and 1st Canadian Divisions in the line from the railway south of Tilloy to Blecourt inclusive. On relief, the 4th Canadian Division came into Corps Reserve in bivouacs in the Inchy-Queant area.

The relief considerably thinned out the Infantry, and in anticipation of possible counter-attacks a large number of Machine Gun Batteries were placed in the line.

October 2 passed without any substantial change in the situation. The enemy's Artillery was very active throughout the day, and at 6.15 p.m. he delivered a determined counterattack, with a force estimated at about a Battalion strong, against the ridge N.E. of Tilloy, on the 2nd Canadian Division front. This counter-attack was repulsed with heavy loss to the enemy.

During the night October 2/3 the 11th Division extended its frontage to the right as far as Blecourt (inclusive), relieving the remainder of the 1st Canadian Division, who came into Corps Reserve west of the Canal on completion of the relief.

The dispositions of the Canadian Corps at noon, October 3, were as follows:—

In the line—the 3rd Canadian Division on the right on a one-Brigade front, from the Arras-Cambrai railway to the Cambrai-Douai railway south of Tilloy; the 2nd Canadian Division in the centre, on a two-Brigade front, extending to the northern outskirts of Blecourt, and the 11th Division

on the left continuing the line to a point 1,000 yards south of Aubencheul-au-Bac.

In Corps Reserve—the 1st and 4th Canadian Divisions. The latter was moved to billets in the Haute Avesnes-Arras area on the night of October 7/8, to give more opportunity to rest and refit.

The period from October 3 to 8 passed without any material changes on the Corps front. An enemy counter-attack was beaten off by the 2nd Canadian Division opposite Bantigny on the morning of October 4, and the 11th Division considerably improved the line on the northern flank by successful minor operations on October 5 and 6.

Many patrol encounters took place, in which some prisoners were captured, and our Artillery and Machine Guns kept the enemy under continual harassing fire day and night. In addition, our Heavy Artillery carried out a daily programme of gas concentrations and counter-battery shoots.

Orders were received on October 3 for the relief of the Corps by the XXII. Corps. Concurrently with this relief, and as it progressed, the Canadian Corps was to take over the front of the XXII. Corps.

Plans for further operations having been formulated to take place on the Third Army front, the Canadian Corps was ordered on October 5 to co-operate by forcing the crossings of the Canal de l'Escaut, north of Cambrai, and the relief contemplated was, therefore, postponed.

The Third Army had been successful in crossing the Canal de l'Escaut south of Cambrai between Crevecœur and Proville. The operation now contemplated had for object the capture of Cambrai by envelopment. This was to be carried out in two phases.

In the first phase the XVII. Corps was to capture Awoignt by attacking from the south, the Canadian Corps was to co-operate by an Artillery demonstration. In the second phase the Canadian Corps was to cross the Canal de l'Escaut and, advancing rapidly, capture Escaudœuvres, joining hands with the XVII. Corps north-east of Cambrai.

The positions occupied by the 3rd and 2nd Canadian Divisions were not favourable for an attack by day; the 3rd Canadian Division was in front of Cambrai, and house-to-house fighting was out of the question; the 2nd Canadian Division was separated from the Canal by glacis-like slopes, devoid of

cover, and on which the enemy had good observation from the numerous houses on the east side of the Canal as well as from the high ground east of Escaudœuvres. In addition, Morenchies, Pont d'Aire, Ramillies, and the villages to the north were strongly held by the enemy.

In spite of the difficulties of a night operation it was decided that the 2nd Canadian Division would attack by night, and attempt to seize the bridges before they were blown up by the enemy.

The 3rd Canadian Division was to cover the right of the 2nd Canadian Division by capturing the railway embankment, and entering Cambrai as soon as possible to prevent any action of the enemy against the right flank of the 2nd Canadian Division, which, under the best circumstances, was bound to be in the air for some time after the crossing of the Canal.

Brutinel's Brigade was to cross the Canal as soon as possible, and extend the gains of the 2nd Canadian Division by seizing the high ground east of Thun St. Martin. Ten Brigades of Field Artillery were available for the operation.

The Attack.—At 4.30 a.m., October 8, the Third Army attacked, and at the same hour an artillery demonstration was carried out on the Canadian Corps front.

The XVII. Corps on the right did not reach Awoignt, but in the evening they were ordered to continue their advance on the morning of October 9 to capture this town; concurrently with this advance the Canadian Corps was to secure the crossings of the Canal de l'Escaut.

In spite of the darkness of a rainy night the assembly was completed, and the attack was launched successfully at 1.30 a.m., October 9. Rapid progress was made, and at 2.25 a.m. the 2nd Canadian Division had captured Ramillies and established posts on the Canal there, and patrols were pushing out to the north-east. On the right the Infantry, assisted by a party of Engineers, rushed the crossings at Pont d'Aire, and, after sharp fighting, captured the bridge intact, with the exception of the western spillway, which had been partially destroyed. Two cork bridges were thrown across, and by 3.35 a.m. our Infantry were well established on the eastern side of the Canal. The 3rd Canadian Division had cleared the railway, and their patrols were pushing into Cambrai, while the Engineers were commencing work on the bridges.

By 8.00 a.m. the 2nd Canadian Division had captured Escaudœuvres, and had established a line on the high ground immediately to the north and east. Detachments of the 3rd Canadian Division had by this time completely cleared Cambrai of the enemy, and troops of the Third Army could be seen coming up towards it from the south.

Cambrai was to be deliberately set on fire by the enemy. Huge fires were burning in the Square when our patrols went through, and many others broke out in all parts of the city. Piles of inflammable material were found ready for the torch, but the enemy was unable to carry out his intention owing to our unexpected attack and rapid progress. A party of one officer and a few men, which had been left with instructions to set fire to Cambrai, was discovered and dealt with before it could do any further damage. The fires were successfully checked by a large detachment of Canadian Engineers who entered the city with the patrols. A considerable number of road mines, "booby traps," etc., were also located and removed.

An air reconnaissance at dawn indicated that the enemy had withdrawn from the area between the Canal de l'Escaut and the Canal de la Sensee, and that all bridges over the latter had been destroyed.

Brutinel's Brigade, passing through the Infantry of the 2nd Canadian Division, seized the high ground at Croix St. Hubert and pushed Cavalry patrols into Thun Levecque.

The 2nd Canadian Division east of the Canal progressed towards the north and occupied Thun Levecque, Thun St. Martin, Blecourt, Cuvillers, and Bantigny, and the 11th Division occupied Abancourt and reached the outskirts of Paillencourt.

The 3rd Canadian Division was withdrawn at 7.10 p.m. when the 24th Division (XVII. Corps) passed through and joined up with the 2nd Canadian Division, and Cambrai and our positions to the east were taken over or occupied by the XVII. Corps.

The 3rd Canadian Division was moved on the following day to bivouacs in the Inchy-Queant area to rest and refit after 12 days of battle.

The attack was continued at 6.00 a.m., October 10, by the 2nd Canadian and 11th (British) Divisions, and good progress was made. The 2nd Canadian Division captured Naves, and by nightfall reached a point one and a-half miles north-east



Canadians entering the burning City of Cambrai. It was fired in scores of places by mines left by the retreating Germans.



on the Cambrai-Salzoir Road. From there our line ran westwards to the Canal de l'Escaut, exclusive of Iwuy, where we were held up by machine gun fire.

In this attack Brutinel's Brigade operated along the Cambrai-Salzoir Road, but finding the Bridge over the Erclin River destroyed could not get their cars further forward.

"This Bridge, although on the outpost line under heavy fire, was immediately replaced by the Engineers, a covering party being supplied by Brutinel's Brigade."

Machine gun crews from the cars went forward on foot, however, and materially assisted the Infantry advancing at this point, and the Corps Cavalry, by a brilliant charge, helped in the capture of the ground east of the Rieux-Iwuy Road.

On the left, the 11th Division cleared the enemy from the area between the Canal de l'Escaut and the Sensee Canal, captured Paillencourt and Estrun, and reached the outskirts of Hem-Lenglet, which they occupied during the night.

The 49th and 51st Divisions were released from Army Reserve and transferred to the Canadian Corps on October 10. During the night 10th/11th the former relieved that part of the 2nd Canadian Division east of Iwuy, and the 51st (Highland) Division moved to the Escaudœuvres area.

At 9.00 a.m., October 11, the Canadian Corps resumed the attack with the 49th Division on the right and the 2nd Canadian Division on the left. The enemy laid down a heavy Artillery barrage and both Divisions encountered stiff opposition. After fierce fighting, however, our attack made good progress, the 49th Division gaining the high ground east of Iwuy, and the 2nd Canadian Division capturing Iwuy and the high ground to the north.

About 10.30 a.m. the enemy delivered a heavy counterattack under an artillery barrage and supported by seven Tanks, from the direction of Avesnes-le-Sec, against the 49th and 2nd Canadian Divisions. Our line was forced back slightly at first, but six of the Tanks were knocked out by our Artillery, the assaulting Infantry dispersed by our machine gun and rifle fire, and the attack repulsed.

Meanwhile, on October 7/8, the 1st Canadian Division had relieved the 4th (British) Division (XXII. Corps) on the frontage between Palluel and the Scarpe River, and passed under the command of the G.O.C., XXII. Corps.

At 5.00 p.m., October 11, I handed over command of the Corps front (less the 11th Divisional sector) to the G.O.C., XXII. Corps, and the 2nd Canadian and the 49th and 51st Divisions were transferred to the XXII. Corps.

At the same hour I assumed command of the former XXII. Corps front, and the 56th and the 1st Canadian Divisions were transferred in the line to the Canadian Corps.

During the night of October 11/12 the 2nd Canadian Division was relieved in the line east of the Iwuy-Denain railway by the 51st (Highland) Division, and on completion of the relief I assumed command of the remainder of the 2nd Canadian Divisional front, extending from the Iwuy-Denain railway exclusive, to the Canal de l'Escaut.

The battle of Arras-Cambrai, so fruitful in results, was now closed. Since August 26 the Canadian Corps had advanced 23 miles, fighting for every foot of ground and overcoming the most bitter resistance.

In that period the Canadian Corps engaged and defeated decisively 31 German Divisions, reinforced by numerous Marksmen Machine Gun Companies. These Divisions were met in strongly fortified positions and under conditions most favourable to the defence.

In this battle 18,585 prisoners were captured by us, together with 371 guns, 1,923 Machine Guns and many Trench Mortars.

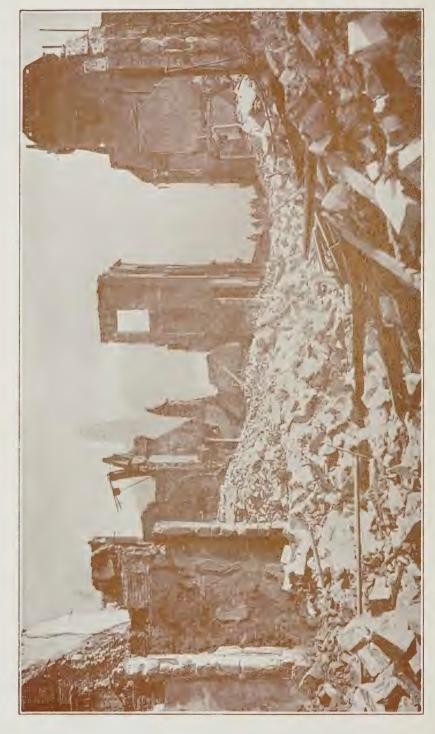
Over 116 square miles of French soil, containing 54 towns and villages, and including the city of Cambrai, were liberated.

The severity of the fighting and the heroism of our troops may be gathered from the casualties suffered between August 22 and October 11, and which are as follows:—

*					
		Officers	. 0	ther Rank	s.
Killed		 296		4,071	
Missing		 18		1,912	
Wounded		 1,230		23,279	
Tot	al	 1,544		29,262	

Considering the great number of German Divisions engaged and the tremendous artillery and machine gun fire power at their disposal, the comparative lightness of our casualties testified to the excellence of the precautions taken by Divisional, Brigade, and Regimental Officers to minimise the loss of life, having ever in mind the performance of their duty and the accomplishment of their heavy task.





A little party of Canadians entering the Ruins of Cambrai. A picture typical of the havoc wrought by German mines.

General Situation. — While the Canadian Corps was tenaciously fighting to break through the hinge of the Hindenburg system of defence, the Third and Fourth British Armies were pushing forward through the devastated areas in the Somme, meeting everywhere strong and determined rearguards. The outer defences of the Hindenburg line were captured by them on September 18 and 19, and a good position secured for the assault of the main defences.

The storming of the Canal du Nord line, which brought the Canadian Corps definitely behind the areas organised for defence, was immediately followed by the capture of the main Hindenburg line on the fronts of the Third and Fourth Armies, and on October 8 and 10 the Canal de l'Escaut was crossed north of Cambrai. Cambrai was seized and the German rearguards pushed back in open country to the Selle River.

The Germans were falling back everywhere; they had now evacuated completely the Lys salient and a portion of the ground east and south of Lens, but they were still holding a line west of Lille-Douai and along the Canal de la Sensee.

The Canadian Corps, although tired and depleted in numbers, began to push forward as soon as it had taken over the new front on the Canal de la Sensee south of Douai. On October 14 the Second Army, in conjunction with the Belgian Armies and French Detachments, attacked the northern part of the salient and precipitated the German retreat.

OPERATIONS—DOUAL—MONS.

The Battle Front.—The new Front of the Canadian Corps (at 5.00 p.m., October 11) extended from Iwuy-Denain Railway, north of Iwuy, to the Canal de l'Escaut at Estrun, thence following the southern bank of the Canal de la Sensee to Palluel, thence crossing the Sensee River at Hamel to the Scarpe River east of Vitry. The front was held by the 2nd Canadian Division from the right to the Canal de l'Escaut—the 11th Division from Estrun (inclusive) to Aubencheul-au-Bac (exclusive)—the 56th Division from Aubencheul-au-Bac (inclusive) to Palluel (inclusive), and the 1st Canadian Division from Palluel (exclusive) to the western boundary. (See Sketch No. 12.)

The Fronts of the 11th and 56th Divisions were then stationary, but on the Front of the 1st Canadian Division

crossings had been forced over the Sensee and Trinquis Rivers that morning, and the enemy was retiring, closely followed by battle patrols of the 1st Canadian Division.

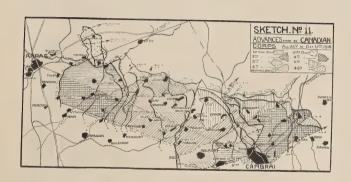
"The 1st Canadian Division had relieved the 4th British Division in the line along the south side of the valleys of the Sensee and Trinquis Rivers, from Palluel exclusive to the Scarpe, during the nights October 5/6 and 6/7, coming under orders of the XXII. Corps.

The front had been a quiet one, the river valleys having been flooded by the enemy to an average width of from 300 to 400 yards, and the bridges destroyed.

On the morning of October 8 the Division carried out a 'Chinese attack' with a view to ascertaining the enemy's probable action if attacked. Under cover of the barrage, patrols succeeded in enlarging the small bridge-head across the river at Sailly-en-Ostrevent, capturing 24 prisoners and two machine guns.

The enemy was expected to withdraw shortly, and this barrage was repeated daily at dawn with the object of harassing the enemy and testing his strength. At 3.00 a.m., October 10, battle patrols were pushed out by the 3rd Canadian Infantry Brigade (Brigadier-General G S. Tuxford) from the bridge-head at Sailly, and after capturing the village they entered the Drocourt - Queant line to the north-east. Thirty prisoners and six machine guns were sent back from Sailly at daylight; a strong enemy counter-attack (estimated at two battalions) overran the force in the Drocourt-Queant line and recaptured Sailly, driving our line back to the line previously held.

On October 11, in conjunction with an attack on the left by the 8th Division, our troops forced their way over the narrow crossings of the Sensee and Trinquis Rivers in the face of considerable machine gun fire and pushed northwards and eastwards, meeting only resistance from isolated machine gun nests. The performance of the first patrols in forcing their way across the narrow causeways, all stoutly defended by machine guns, was a splendid achievement."





By the night of October 11 the 1st Canadian Division, on the left, had reached the line Hamel-Estrees-Noyelles (all inclusive), and at dawn, October 12, pushed forward, clearing Arleux and reaching the west bank of the Canal from Palluel to the Scarpe.

On October 12 the line remained stationary between the Canal du Nord and the Canal de l'Escaut. East of the Canal de l'Escaut the 2nd Canadian Division attacked at noon in conjunction with the XXII. Corps on the right and captured Hordain. Attempts to push forward to Basseville were, however, stopped by machine gun fire. The restricted area and the inundated condition of the ground prevented further progress on this front until the troops on the right could get forward.

It was apparent from many indications that the enemy was preparing to carry out a withdrawal on a large scale. Prisoners reported the evacuation of civilians and the removal or destruction of all stores, also that roads and railways had been prepared for demolition. These statements were confirmed by our observers, who reported numerous and frequent explosions and fires behind the enemy's lines.

On the Canadian Corps' front, the Divisions in the line were confronted by the Canal de la Sensee, and this in its flooded condition was a serious obstacle, the few crossings possible being narrow and easily defended. Orders were issued, however, that a policy of aggressive patrolling should be adopted to detect at the earliest moment any retirement, and that all preparations should be made for an immediate and rapid pursuit.

Our patrols were most daring during the next few days, but no weak spot was to be found along the enemy front, our attempts at crossing the Canal being stopped by heavy machine gun and rifle fire.

During the night October 12/13 the 2nd Canadian Division extended its left to Aubencheul-au-Bac exclusive, relieving the 11th Division in the line, with the 4th Canadian Infantry Brigade (Brigadier-General G. E. McCuaig) on the right, and the 6th Canadian Infantry Brigade (Brigadier-General A. Ross) on the left. At this stage the G.O.C. 56th Division represented that his troops were too weak and tired to carry out the vigorous pursuit required in case of an enemy withdrawal. The 4th Canadian Division was, therefore, ordered to relieve the 56th Division by the morning of October 16, and in the meantime

to place one Brigade at the disposal of the G.O.C. 56th Division to be used in following up the enemy. On October 13 the 10th Canadian Infantry Brigade, which had been resting in Arras, was accordingly moved up to Marquion, and came into reserve under the 56th Division.

During the early morning of October 13 the 56th Division crossed the Canal and succeeded in establishing a bridge-head at Aubigny-au-Bac, capturing the village with 201 prisoners. At 10.00 p.m. the following night, however, an enemy counterattack in strength caused our withdrawal from the village, but the bridge-head was retained.

The relief of the 56th Division by the 4th Canadian Division was carried out on the nights October 14/15 and 15/16 without incident, and the former moved back to rest in the Arras-Haute Avesnes-Marœuil area, coming into Army Reserve.

Patrols of the 1st Canadian Division succeeded in crossing the Canal near Ferin, on its left Brigade front, during the early morning of October 14, but meeting strong resistance, the parties withdrew, taking with them some prisoners and machine guns.

The Advance.—Test barrages were carried out on the Corps' front each morning to ascertain the enemy's strength and attitude, and on October 17' the enemy was found extremely quiet and did not retaliate to our Artillery fire on the front of the 1st Canadian Division. Patrols were, therefore, sent out on that front and succeeded in crossing the Canal in several places, meeting only slight opposition. Stronger patrols followed and made good progress.

On the front of the 4th Canadian Division, however, all attempts to cross the Canal were still met by machine gun fire. After the 1st Canadian Division had secured crossings, a Battalion of the 4th Canadian Division was sent up to take advantage of these crossings and, working down the east side of the Canal, cleared the enemy on the 4th Canadian Division front, and enabled the advance to commence there.

Further to the right, at Hem Lenglet, the 2nd Canadian Division succeeded in crossing the Canal later in the day, and patrols were pushed on in the direction of Wasnes-au-Bac.

Only enemy rearguards were encountered during the day, and the opposition was nowhere heavy, although more organised and stubborn on the right opposite the 2nd Canadian Division.

By 6.00 a.m., October 18, practically all the Infantry of the 1st and 4th Canadian Divisions and several Battalions of the 2nd Canadian Division were across the Canal, and the following towns had been liberated:—Ferin, Courchelettes, Goeulzin, Le Racquet, Villers-au-Tertre, Cantin, Roucourt, Brunemont, Aubigny-au-Bac, Fechain, Fressain, Bugnicourt, and Hem Lenglet.

During that day two armoured cars, one squadron of the Canadian Light Horse, and one Company of Canadian Corps Cyclists from Brutinel's Brigade, were attached to each of the 1st and 4th Canadian Divisions to assist in the pursuit of the enemy. These troops rendered valuable service to the Divisions to which they were attached, although the enemy's very complete road destruction prevented the armoured cars from operating to their full extent.

Throughout the advance now begun a great amount of work was thrown upon the Engineers, and their resources in men and material were taxed to the utmost. The enemy's demolition had been very well planned and thoroughly carried out, all bridges over the canals and streams being destroyed, every cross road and road junction rendered impassable by the blowing of large mines, and the railways, light and standard, blown up at frequent intervals. The enemy also considerably impeded our progress by his clever manipulation of the water levels in the canals which he controlled.

Foot-bridges were first thrown across the Canal, and these were quickly followed by heavier types of bridges to carry Battalion transport and Artillery, and in addition eight heavy traffic bridges, ranging in length from 90 to 160 feet, were at once put under way. On the Front of the 1st Canadian Division on the left the enemy drained the Canal, and it was found impossible to complete and use the pontoon bridges first commenced.

The Engineers in the forward area concentrated their efforts on road repair, craters being quickly filled in, for the most part with material gathered on the spot and found in enemy dumps. In addition, the whole areas were searched immediately after their occupation, many "booby traps" and delayed action mines being discovered and rendered harmless, and all water supply sources being tested.

It was clear from the wholesale destruction of roads and railways that the reconstruction of communications would be very slow and that it would be difficult to keep our troops

remained under the Leading Divisions throughoutsubsequent operations and supplied. Canadian Railway Troops were brought up, and, as soon as the enemy had been cleared away from the Canal, work was commenced on the repairing of the standard gauge railway forward from Sauchy Lestree. The construction of a railway bridge over the Canal at Aubencheul-au-Bac was immediately commenced.

The enemy retirement now extended considerably north of our front, and the VIII. Corps on our left began to move forward. During October 18 rapid and fairly easy progress was made, and the following towns and villages were liberated from the enemy:—Dechy, Sin-le-Noble, Guesnain, Montigny, Pecquencourt, Loffre, Lewarde, Erchin, Masny, Ecaillon, Marquette, Wasnes-au-Bac and the western portions of Auberchicourt and Monchecourt.

During the day the advance had carried us into a large industrial area, and well-built towns became more frequent. It also liberated the first of a host of civilians, 2,000 being found in Pecquencourt and a few in Auberchicourt. These people had been left by the retiring enemy without food, and faced as we were by an ever lengthening line of communication, and with only one bridge yet available for anything but horse transport, the work of the supply services was greatly increased. This additional burden was, however, cheerfully accepted, and the liberated civilians, whose numbers exceeded 70,000 before Valenciennes was reached, as well as our rapidly advancing troops, were at no time without a regular supply of food.

On October 19 the advance was continued on the whole Corps' front, nearly 40 towns and villages being wrested from the enemy, including the large town of Denain.

The XXII. Corps, advancing on our right from the south, gained touch with the 4th Canadian Division just east of Denain on the evening of October 19, pinching out the 2nd Canadian Division, which was then concentrated in the Auberchicourt carea, where good billets were available.

In spite of bad weather and increased resistance more ground was gained on the 20th, and the villages of Hasnon, Les Faux, Wallers and Haveluy, with a large population, were freed.

During the day resistance had stiffened all along the line. The ground over which we were advancing was very flat, and there was no tactical advantage to be gained by pushing forward, and a further advance would also increase the difficulties of

on this

supply. In addition, on the left, the VIII. Corps had not been able to cope with the supply question and had not advanced in conformity with our progress. In view of these considerations, orders were issued that Divisions were to maintain touch with the enemy without becoming involved in heavy fighting.

For a time on the 20th the 4th Canadian Division was held up just east of Denain by machine gun and artillery fire, and it was not until late in the afternoon that our troops could make progress there.

Continuing the advance on the 21st, a footing was gained in the Foret-de-Vicoigne, and the following villages were captured:—Aremberg, Oisy, Herin, Rouvignes, Aubry, Petite Foret, Anzin, Prouvy, Bellaing and Wavrechain. As on the previous day, all these villages contained civilians, who subsequently suffered considerably from deliberate hostile shelling.

The 1st Canadian Division had now been in the line for two weeks without having an opportunity to rest and refit since the hard-fought battle of the Canal du Nord, and orders were issued for its relief by the 3rd Canadian Division. At dawn on the 22nd, in order that touch with the enemy be maintained, the 1st Canadian Division pushed forward. Following closely, the 3rd Canadian Division passed through the 1st Canadian Division during the forenoon, on the left Brigade front, about 9.00 a.m., on the line of the St. Amand-Raismes Road, and on the right about 12 noon on the line of the St. Amand-Raismes railway, the Foret de Vicoigne having been cleared of the enemy. On relief, the 1st Canadian Division came into rest billets in the Somain-Pecquencourt-Masny area.

The 3rd and 4th Canadian Divisions pushed on during the 22nd, and by nightfall Trith St. Leger, La Vignoble, La Sentinelle, Waast-le-Haut, Beauvrages, Bruay, and practically the whole of the large forest of Raismes, were in our hands. On the left Brigade front of the 4th Canadian Division the Canal de l'Escaut had been reached in places. A very large area north-east of Valenciennes and a smaller area to the south-west had been flooded, and to the west of the city the Canal itself provided a serious obstacle. To the south-west, beyond the flooded area, Mont Houy and the Famars Ridge made a natural line of defence.

The XXII. Corps on our right had been held up along the Ecaillon River, and the VIII. Corps on our left had not been able to make any considerable advance, chiefly owing to supply difficulties, and were still some distance behind us.

The Divisions continued to push forward in the face of steadily increasing opposition, and by the 25th had reached the Canal and the western edge of the inundated area along the whole Corps front.

Our troops had had a very arduous pursuit, and the rail-head for supplies and ammunition was still very far to the rear. It was therefore decided that we should make good the west bank of the Canal and stand fast until the flanking Corps had made progress.

Attempts to cross the Canal proved that the enemy was holding in strength a naturally strong position, and it was ordered that no crossing in force would be attempted without reference to Corps Headquarters. The Engineers established dumps of material well forward on selected sites so that the bridges necessary to cross the Canal on the resumption of our advance could be constructed without delay.

It had become apparent that, unless the enemy withdrew, Valenciennes could only be taken from the south. The XXII. Corps, on the right, had meanwhile succeeded in crossing the Ecaillon River after a hard fight and captured the Famars Ridge. They had, however, been unable to take Mont Houy, which commanded Valenciennes from the south.

On October 27 the First Army Commander outlined the plans for operations to be carried out in conjunction with attacks on a large scale by the Third and Fourth Armies to the south as follows:—

The First Army was to capture Valenciennes. The operation to be carried out in three phases as follows:—

- (a) The capture of Mont Houy and Aulnoy—to be carried out by the XXII. Corps on the morning of October 28.
- (b) The capture of the high ground overlooking Valenciennes from the south—to be carried out by the Canadian Corps on a subsequent date, probably October 30.
- (c) The capture of the high ground east of Valenciennes—to be carried out after (b) above, probably on November 1.

Valenciennes would thus be outflanked from the south. The Canadian Corps would take over, probably on the night of October 28/29, the left Brigade frontage of the XXII. Corps (approximately 2,500 yards) in order to carry out phase (b) and (c) of this operation. The above attacks were to be carried out simultaneously with the attacks of the Third and Fourth Armies.

In accordance with the above, instructions were issued to the 3rd Canadian Division to take over the frontage of the left Brigade of the 4th Canadian Division. The 4th Canadian Division was, in turn, ordered to redeve the left Brigade of the XXII. Corps (51st Division), both side-slips to take place on the night of October 28/29, subsequent to the capture of Mont Houy by the XXII. Corps.

The attack of the 51st Division on Mont Houy on October 28 was not successful. In the first rush the troops succeeded in gaining a foothold on the objective, but were subsequently driven out by repeated counter-attacks. In view of this, the relief of the left Brigade of that Division by the 4th Canadian Division was postponed. During the night of October 28/29, however, the 3rd Canadian Division relieved the left Brigade of the 4th Canadian Division.

Capture of Mont Houy and Valenciennes.—Orders were received that the Canadian Corps was to carry out all three phases of the operation against Valenciennes in conjunction with attacks of the XXII. Corps. Accordingly, the 4th Canadian Division was ordered to relieve the left Brigade of the 51st Division during the night of October 29/30 on the line then held, and to be prepared to carry out the attack on the morning of November 1.

In conjunction with the attack the 3rd Canadian Division was ordered to cross the Canal and the inundated area on its front, and establish a bridge-head to enable the Engineers to reconstruct the bridges leading into the city.

In the short period available elaborate preparations were made for the support of the attack. The position was eminently suitable for the use of enfilade as well as frontal fire, the general direction of the attack on Mont Houy being parallel to our front, and full advantage of this was taken in arranging the Artillery and Machine Gun barrages.

The application of Heavy Artillery fire was restricted because the enemy had retained many civilians in Valenciennes and the adjoining villages. Strict orders were issued that the city and villages were not to be bombarded, with the exception of a row of houses on the eastern side of the Canal which were occupied by a large number of machine guns. To hinder the good observation which the enemy would otherwise have been able to enjoy from the city and villages, very elaborate arrangements were made to place heavy smoke screens along certain areas.

Despite great difficulties of transport, the supplies of ammunition, bridging material, etc., moved forward were sufficient, and before dawn on November 1 all preparations were completed.

The time for the assault was fixed for 5.15 a.m., November 1. The plan of attack was as follows:—

"The right Brigade of the 4th Canadian Division (10th Canadian Infantry Brigade, Brigadier-General J. M. Ross), south-east of the Canal, was to carry out the attack at zero hour under a co-ordinated barrage in a northerly direction and capture Mont Houy, Aulnoy, and the high ground south of Valenciennes, and then to exploit the success by pushing on to the high ground east of the city.

"Subsequently, the troops north-west of the Canal (left Brigade—4th Canadian Division and the 3rd Canadian Division) were to force crossings north of the city and encircle it from that side."

At 5.15 a.m., November 1, the attack was launched, and from the first went entirely according to plan on the Canadian Corps front. The enemy barrage dropped quickly and was very heavy, but shortly afterwards slackened down under the influence of our efficient counter-battery fire. In the meantime the attacking Infantry got well away, advancing under a most excellent barrage, and reached their objective, the line of the Valenciennes-Maubeuge railway, on time right behind the barrage.

The fighting during the advance was heavy, especially around the houses along the Famars-Valenciennes Road and in Aulnoy.

The thoroughness of the preparations made for this small but important battle is better illustrated by the following striking figures:—

Number of enemy dead buried ... over 800 Prisoners captured ... over 1,300 (exceeding the number of assaulting troops).

Our casualties (approx.) .. 80 killed and 300 wounded On the left, the left Brigade of the 4th Canadian Division and the 3rd Canadian Division had, in the meantime, succeeded in crossing the Canal. Bridge-heads were established north of

The Village of Onnaing and the western Rout of Rombies fell into our hands after severe fighting.

ONE OF THE LAST STAGES ON THE ROAD TO VICTORY.



Canadians entering Valenciennes after they had crossed the Canal L'Escaut under heavy machine-gun fire. The townspeople gave them a great welcome.



the city, the station and railway yards were seized, and the Engineers commenced the construction of bridges.

The enemy did not counter-attack against the Canadian Corps during the day, but continued to hold out strongly in the southern outskirts of Valenciennes and Marly, and in the steel works to the south-east until dark. Two counter-attacks against the XXII. Corps front on the right caused some anxiety, but that flank was strengthened and no trouble developed

During the night the 4th Canadian Division took over an additional Brigade frontage from the 49th Division (XXII. Corps) on the right preparatory to the capture of the high ground east of Marly.

Patrols of the 4th Canadian Division pushed forward during the night and ascertained that the enemy was withdrawing. In the early morning our troops had completely cleared Valenciennes and Marly, and patrols had entered St. Saulve.

The advance was continued in the face of stubborn resistance from enemy rearguards throughout November 2 on the whole Corps front, and by nightfall had reached the line Marly-St. Saulve-Bas Amarais-Raucourt Chateau, all inclusive. On the front of the 3rd Canadian Division the advance was particularly difficult, the country being under water except where railway embankments, slag-heaps, and houses stood up out of the flood and afforded excellent cover for enemy machine gunners and riflemen.

Some stiff fighting took place when the advance was continued on November 3, but in spite of this good progress was made, especially on the right on the front of the 11th Canadian Infantry Brigade (Brigadier-General V. W. Odlum), where the line was advanced 3,000 yards and the village of Estreux captured. Progress on the left was necessarily slower owing to the flooded nature of the ground.

The front of the 3rd Canadian Division had now become very extended, and on the night of the 3rd/4th a portion of it, from Odomez to Fresnes—about a mile in extent—was handed over to the 52nd Division of the VIII. Corps.

On November 4 the line was carried forward about two miles on the front of the 4th Canadian Division. The 3rd Canadian Division was still forcing its way through marsh and water, and made good the Vicq-Thiers railway. On the extreme left of the 3rd Canadian Division a strong point east

of the Canal de l'Escaut was captured and the Escaupont-Quievrechain railway bridge was taken. The village of Onnaing and the western part of Rombies fell into our hands during the day.

During the early hours of November 5 the 3rd Canadian Division entered the town of Vicq, following the capture of two points of local tactical importance west of the town. A large portion of the line of the Escaupont-Quievrechain railway was also made good, and the northern part of Quarouble captured during the day.

The 4th Canadian Division attacked on November 5, and, clearing Rombies and the southern part of Quarouble, crossed the River Aunelle between Rombies and Marchipont, the enemy fighting very stubbornly to prevent our crossing. By this advance the first troops of the Canadian Corps crossed into Belgian territory, the Aunelle River being the boundary at that point.

The advance was resumed on November 6 and important progress made. The villages of Marchipont, Baisieux, and the southern portion of Quievrechain were taken by the 4th Canadian Division, while the 3rd Canadian Division took the railway station and glassworks at Quievrechain and the northern part of the village, and also captured Crespin further north.

The enemy's resistance was very stubborn. The XXII. Corps on the right were forced to give up a portion of the ground gained and to withdraw to the west bank of Honelle River at Angre, in the face of severe counter-attacks.

The 2nd Canadian Division relieved the 4th Canadian Division during the night 6/7, and the latter was withdrawn to rest in the Anzin-Aubry area, just west of Valenciennes.

On our right we were now getting into the heart of the Belgian coal district—a thickly populated area, where the numerous towns and villages, the coal mines, and the commanding slag-heaps complicated the task.

The 2nd and 3rd Canadian Divisions attacked on the morning of the 7th and, although by this time the weather had broken and the country was rapidly becoming thoroughly water-logged, good progress was made during the day, the enemy showing increasing signs of demoralisation.

The 2nd Canadian Division, on the right, cleared the remainder of Baisieux, captured the sugar refinery north-east of that town, the town of Elouges, and the many small settlements Baisieux

that surrounded it. In conjunction with the 3rd Canadian Division Quievrain was taken, and an advance of about two and a-half miles made. On the left the 3rd Canadian Division, in addition to co-operating with the 2nd Canadian Division in the capture of Quievrain, pushed along the Mons road for about 4,000 yards and took La Croix and Hensies, north of the road.

The VIII. Corps on our left had still been unable to negotiate the Canal de l'Escaut. In order to better protect our rapidly lengthening left flank the 3rd Canadian Division was ordered to extend its attacks to the north, and, in addition to clearing the country south of the Conde-Mons Canal, to secure the crossings of the Canal.

When the advance was continued on the 8th, the 3rd Canadian Division pushed troops to the north, and by noon had secured the villages of Thievencelle and St. Aybert. Later in the day a foot-bridge was constructed across the Conde-Mons Canal, and under cover of darkness patrols crossed

and a bridge-head was established.

Further south the 3rd Canadian Division had surprised the enemy in the villages of Montreuil-sur-Haine and Thulin at an early hour, and these towns were quickly captured. Pushing on from here the village of Hamin was taken, and by nightfall our troops were on the western outskirts of Boussu.

The 2nd Canadian Division met with strong opposition. Good progress was, however, made, and by midnight the important village of Dour and the smaller villages of Bois-de-Boussu, Petit Hornu, Bois-de-Epinois, and a portion of the Bois-de-Leveque were cleared.

Resuming the advance on the 9th, the 2nd Canadian Division captured Warquignies, Champ-des-Sait, Petit Wasmes, Wasmes-Paturages, La Bouverie, Lugies, Frameries, and Genly with little opposition. The advance made by this Division was over four miles through densely populated areas, the twin towns of Wasmes-Paturages combined having a population of about 30,000. By nightfall the 2nd Canadian Division was clear of the main mining district.

The 3rd Canadian Division had on its left front crossed the River Haine during the night, north of Montreuil-sur-Haine, and later secured a further hold on the north bank of the Conde-Mons Canal near Le Petit Crepin. During the afternoon, further troops were sent across the Canal, and the villages of Petit Crepin, Ville Pommerœuil, Hautrage and Terte were

taken. Further west, the patrols which had crossed the Canal on the previous day entered Pommerœuil and Bernissart.

The 3rd Canadian Division had also occupied Boussu, on its right, before daylight on the 9th, and rapid progress eastward was made during the day towards Mons, the villages of Cuesmes, Jemappes, Flenu, Hornu, Wasmes, Quaregnon, Wasmuel and St. Ghislain all being captured. The rapidity of our advance had evidently surprised and disorganised the enemy, although some opposition was met.

By the morning of November 10, the 52nd Division (VIII. Corps) had advanced and relieved that part of the 3rd Canadian Division operating north of the left boundary of the Canadian Corps.

The 3rd Canadian Division's advance on the 10th brought our troops to the south-western outskirts of Mons, while the 2nd Canadian Division had reached the Mons-Givry Road, outflanking the city from the south, but owing to the large number of civilians still in the city, it was not possible for us to bombard the town. To the north of the Conde-Mons Canal, a further advance was made and the village and Fosse of Ghlin secured.

During the night November 10/11 the Divisions resumed their advance, and immediately after dark the troops of the 7th Canadian Infantry Brigade (Brig.-General J. A. Clark) commenced to close in. The villages of Nimy and Petit Nimy were quickly captured and an entry into Mons by way of the Railway Station was effected before midnight. By 6.00 a.m. on November 11 the stubborn machine-gun resistance had been broken and the town cleared of the enemy.

The 2nd Canadian Division had, during the night, taken the Bois-le-Haut, a wood crowning a large hill on the southeastern outskirts of Mons, thus securing the right flank of the 3rd Canadian Division. The capture of this high ground forced upon the enemy a further retirement, and our troops, still pressing on, reached and captured St. Symphorien and Fbg. Barthelmy by 8.00 a.m.

In the meantime, word had been received through First Army that hostilities would cease at 11.00 a.m. on November 11, the Armistice having been signed in acceptance of our terms.

To secure a satisfactory line for the defence of Mons, our line was further advanced, and the Bois-d'Havre, Bois-du-Rapois and the town and villages of Havre, Bon Vouloir, La

Bruyere, Maisieres, St. Denis and Obourg were captured before hostilities ceased.

Between October 11 and November 11 the Canadian Corps had advanced to a total depth exceeding ninety-one thousand yards (91,000 yards), through a country in which the enemy had destroyed railways, bridges and roads, and flooded large

areas to further impede our progress.

To the normal difficulties of moving and supplying a large number of men in a comparatively restricted area were added the necessity of feeding several hundred thousand people, chiefly women and children, left in a starving condition by the enemy. Several deaths by starvation, or through suffering consecutive to privation, were experienced in villages or towns which, being kept under hostile shell fire and defended by machine guns, could not be captured rapidly by our troops.

The fighting was light up to the Canal de L'Escaut, but stiffened perceptibly from there on until the capture of Mons, and added a great deal to the physical exertion caused by such a long advance in adverse weather. The table hereunder shows the average daily advances made by the Canadian Corps

in that period:--

nat per	iou	•					
From			To				Yards.
Oct.	11			Oct. 12			4,000
Oct.	12			Oct. 17			7,000
Oct.	17			Oct. 18			5,000
Oct.	18			Oct. 19			12,000
Oct.	19			Oct. 20			2,500
Oct.	20			Oct. 21			5,000
Oct.	21			Oct. 22			6,000
Oct.	22			Oct. 23			3,000
Oct.	23			Oct. 24			1,000
Oct.	24			Nov. 1			3,500*
Nov.	1			Nov. 2			3,000
Nov.	2			Nov. 3			2,000
Nov.	3			Nov. 4			3,000
Nov.	4			Nov. 5			1,500
Nov.	5			Nov. 6			4,000
Nov.	6			Nov. 7			4,000
Nov.	7			Nov. 8			3,500
Nov.	8			Nov. 9			11,000
Nov.	9			Nov. 10			1,500
Nov.	10			Nov. 11			9,000
				Total			91,500
w TT 11		C 4 4	77-1	onnos till after	the ear	oture of 1	

^{*} Held up in front of Valenciennes till after the capture of Mont Houy.

When it is recalled that since August 8 the Canadian Corps had fought battles of the first magnitude, having a direct bearing on the general situation, and contributing to an extent difficult to realise to the defeat of the German Armies in the field, this advance under most difficult conditions constitutes a decisive test of the superior energy and power of endurance of our men.

It is befitting that the capture of Mons should close the fighting records of the Canadian Troops, in which every battle they fought is a resplendent page of glory.

The Canadian Corps was deeply appreciative of the honour of having been selected amongst the first for the task of establishing and occupying the bridge-heads east of the Rhine.

A long march of 170 miles under difficult conditions was ahead of them, but they ungrudgingly looked forward to what had always been their ultimate objective—the occupation of German soil.

Between August 8 and November 11 the following had been captured:—

Prisoners	• •		31,537
Guns (Heavy and Field)			623
Machine Guns			2,842
Trench Mortars (Heavy	and Lig	ght)	336

Over 500 square miles of territory and 228 cities, towns and villages had been liberated, including the cities of Cambrai, Denain, Valenciennes and Mons.

From August 8 to October 11 not less than 47 German Divisions had been engaged and defeated by the Canadian Corps, that is, nearly a quarter of the total German Forces on the Western Front.

After October 11 the disorganisation of the German Troops on our front was such that it was difficult to determine with exactitude the importance of the elements of many Divisions engaged.

In the performance of these mighty achievements all arms of the Corps have bent their purposeful energy, working one for all and all for one. The dash and magnificent bravery of our incomparable Infantry have at all times been devotedly seconded with great skill and daring by our Machine Gunners, while the Artillery lent them their powerful and never-failing support. The initiative and resourcefulness displayed by the Engineers contributed materially to the depth and rapidity of our advances. The devotion of the Medical personnel has





A Canadian Kilted Battalion marching through the Grande Place, Mons. after their final victory on the morning of November 11, 1918. the date on which the Armistice was signed.

been, as always, worthy of every praise. The Administrative Services, working at all times under very great pressure and adverse conditions, surpassed their usual efficiency. The Chaplain Services, by their continued devotion to the spiritual welfare of the troops and their utter disregard of personal risk, have endeared themselves to the hearts of everyone. The incessant efforts of the Y.M.C.A. and their initiative in bringing comforts right up to the front line in battle were warmly appreciated by all.

I desire to record here my deep appreciation of the services of Brigadier-General N. W. Webber, B.G.G.S., Canadian Corps, and of the generous efforts and untiring zeal of the General Officers, Regimental Officers, the heads of all Arms, Services and Branches, and the members of the various Staffs.

PART III.

Fifth Period. November 12 to December 31.

Upon the cessation of hostilities and in accordance with the terms of the Armistice the leading troops of the Canadian Corps stood fast on the line reached, and examining posts were placed on all roads.

Generally speaking, the policy adopted was as follows:-

- 1. Our own troops were not to advance east of the line reached, and our aeroplanes were to keep at a distance of not less than one mile behind that line.
- 2. No intercourse or fraternisation with the enemy was to be allowed, and he was not to be permitted to approach our lines.

In order to maintain the highest state of efficiency throughout the Corps, I ordered commanders to pay the strictest attention to discipline and smartness, and especially the well-being of their men. All troops not on duty were given every opportunity for rest and recreation.

The general outline of the plan for the advance of the British Armies to the Rhine provided that the Second and Fourth British Armies would advance, and that the Canadian Corps would form part of the Second Army.

The advance was to commence on November 17 and continue for 30 days. The Second Army would advance on a two-Corps front, the Canadian Corps to lead on the right.

It was decided that the Corps would march on a front of two Divisions, the 1st and 2nd Canadian Divisions leading, and the 3rd and 4th Canadian Divisions following. At the time of cessation of hostilities the Canadian Corps was disposed as follows:—

Corps Headquarters .. Valenciennes.

1st Canadian Division .. Masny-Montigny-Somain area.

2nd Canadian Division .. In the line on the right south-east of Mons.

3rd Canadian Division .. In the line on the left and in Mons.

4th Canadian Division ... Valenciennes - Anzin - St. Vaast area.

In order to concentrate the Corps as far forward as possible prior to commencing the march to the Rhine, the following moves were carried out prior to the night November 15/16:—

2nd and 3rd Canadian

Divisions Closed up in the eastern ends of their respective areas.

1st Canadian Division .. Concentrated in the area
Thulin-Boussu-

Hornu-Jemappes (west of Mons).

4th Canadian Division ... Concentrated in the area La Bouverie - Paturages - Wasmes

(south-west of Mons).

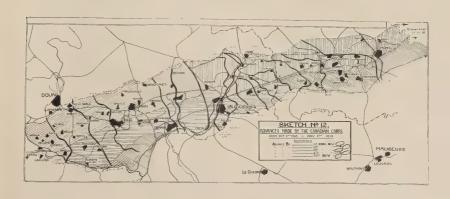
Corps Troops Jemappes area.

The instructions for the carrying out of the advance to the Rhine were issued during this period. The conditions generally were as follows:—

1. The country through which we were to advance was divided into zones, from each of which the enemy

was to withdraw on the day before our entry.

2. The advance was to be carried out under active service conditions, and all military precautions against surprise were to be taken. During the march each column was to be covered by an Advanced Guard, and on arrival at destinations, outposts were to be established in accordance with "Field Service Regulations." Troops were to be billeted in sufficient depth to facilitate supply, but adequate forces would be kept ready on 48 hours' notice to overcome any attempted resistance by the enemy should he oppose our advance.





3. The advance would be covered by a Cavalry Screen, one day's march ahead of the leading Infantry.

At 10.00 a.m., November 16, Headquarters Canadian Corps moved from Valenciennes to Mons, and on the 16th and 17th, the concentration being completed, the troops of the Corps stood fast, completing the final arrangements for the advance.

On November 18, 1918, the 1st and 2nd Canadian Divisions commenced the march to the Rhine (See Sketch No. 13), the heads of the columns crossing the outpost line at 9.00 a.m. on that day.

The 2nd Canadian Division advanced on the right and the 1st Canadian Division on the left, each in three columns. Each column found its own close protection, assisted by Cavalry and Cyclists attached from the Corps Troops.

No enemy troops were encountered during the march, and the following line was reached by dusk: Haine St. Pierre-Houdeng-Aimeries-Rœulx-Haute Folie-Soignies-Horrues.

The examining posts and outpost line of the 3rd Canadian Division were relieved and withdrawn as soon as the Advanced Guard of the 1st Canadian Division passed through.

The Corps halted on November 19 and 20, the 4th Canadian Division closing up into the area south and south-west of Mons, vacated by the 2nd Canadian Division, and the Corps Troops concentrating in and around Jemappes.

The 1st and 2nd Canadian Divisions resumed the advance on November 21, the heads of main bodies crossing the outpost line at 9.00 a.m., and the following line was reached by nightfall—Gosselies-Nivelles-Lillois Road.

The 3rd and 4th Canadian Divisions and Canadian Corps Troops did not move, as was previously intended, owing to supply difficulties.

The Corps stood fast on November 22 and 23, all Units resting and smartening up.

For some time past the question of the demobilisation of the Canadian Corps had been frequently discussed. Having often conferred on this subject, not only with the General Officers and Staffs, but also with the men themselves, I had represented from time to time that there was a strong feeling in the Corps that demobilisation should be carried out by Units.

I now wished, before taking any further step, to ascertain definitely the desires of the Corps To that end, a conference

was held on November 23, 1918, at Mons, at which all available Divisional and Brigade Commanders, Heads of Services and Branches, were asked to be present.

The following took part in this conference:—

- Maj.-Gen. A. C. Macdonell, C.B., C.M.G., Commanding 1st Canadian Division.
- Maj.-Gen. Sir H. E. Burstall, K.C.B., Commanding 2nd Canadian Division.
- Brig.-Gen. W. A. Griesbach, C.M.G., D.S.O., Commanding 1st Canadian Infantry Brigade.
- Brig.-Gen. R. P. Clark, D.S.O., M.C., Commanding 2nd Canadian Infantry Brigade.
- Brig.-Gen. G. S. Tuxford, C.B., C.M.G., Commanding 3rd Canadian Infantry Brigade.
- Brig.-Gen. G. E. McCuaig, C.M.G., D.S.O., Commanding 4th Canadian Infantry Brigade.
- Brig.-Gen. T. L. Tremblay, C.M.G., D.S.O., Commanding 5th Canadian Infantry Brigade.
- Brig.-Gen. A. Ross, D.S.O., Commanding 6th Canadian Infantry Brigade.
- Brig.-Gen. J. A. Clark, D.S.O., Commanding 7th Canadian Infantry Brigade.
- Brig.-Gen. D. C. Draper, D.S.O., Commanding 8th Canadian Infantry Brigade.
- Brig.-Gen. D. M. Ormond, D.S.O., Commanding 9th Canadian Infantry Brigade.
- Brig.-Gen. J. M. Ross, D.S.O., Commanding 10th Canadian Infantry Brigade.
- Brig.-Gen. V. W. Odlum, C.B., C.M.G., D.S.O., Commanding 11th Canadian Infantry Brigade.
- Brig.-Gen. J. H. McBrien, C.M.G., D.S.O., Commanding 12th Canadian Infantry Brigade.
- Colonel A. Macphail, D.S.O., C.R.E., 1st Canadian Division.
- Lt.-Col. S. H. Osler, D.S.O., C.R.E., 2nd Canadian Division.
- Colonel H. F. H. Hertzberg, D.S.O., M.C., C.R.E., 3rd Canadian Division.
- Colonel H. T. Hughes, C.M.G., C.R.E., 4th Canadian Division.

Maj.-Gen. W. B. Lindsay, C.M.G., D.S.O., G.O.C.C.E.

Brig.-Gen. G. J. Farmar, C.B., C.M.G., D.A. and Q.M.G., Canadian Corps.

Brig.-Gen. R. Brutinel, C.M.G., D.S.O., G.O.C., Canadian Machine Gun Corps.

Lt.-Col. The Hon. C. M. Hore-Ruthven, C.M.G., D.S.O., G.S,O. 1, 3rd Canadian Division.

Lt.-Col. M. C. Festing, D.S.O., G.S.O. 1, Canadian Corps.

The question of demobilisation was fully and freely discussed, every individual present being asked to express his definite opinion on the subject.

All present were unanimous in the opinion that from every point of view it was most desirable to demobilise the Corps by Units and not by categories.

As the outcome of this consultation, a letter was sent to the Minister, Overseas Military Forces of Canada, embodying the sentiments of the Canadian Corps.

On November 23 instructions were received that the Canadian Corps would be composed as under for the purposes of the advance to the Rhine:—

Corps Headquarters. 1st Canadian Division. 2nd Canadian Division. Corps Troops.

The 3rd and 4th Canadian Divisions, with the 8th Army Brigade, C.F.A., and the 126th Army Brigade, R.F.A. (attached to 3rd and 4th Canadian Divisions), together with the 1st and 3rd Brigades C.G.A., were transferred to the IV. Corps, Fourth Army. These two Divisions remained billeted in Belgium for the rest of the year.

The general plans for the advance were amended, it being decided that only the Second Army would cross the Rhine and establish bridge-heads. This amendment was made necessary by the difficulty of bringing forward the necessary supplies owing to the thorough destruction of railways and roads in the battle areas, and the immense amount of work required to effect temporary repairs sufficient to take care of the needs of the Army and of the Belgian population.

On November 24 the leading Divisions continued the march without incident, reaching the line Velaine-Sombreffe-Mellery, and Corps Headquarters moved to Gosselies at noon.

On November 25 the march was continued, the leading Divisions halting on the line Namur-Meux-Grand Leez.

The Corps halted on November 26. The weather, which had continued generally good up to this time, now broke, and the daily rains, coupled with the heavy traffic, greatly damaged the surface of the roads. During the fine weather it had been possible to use side roads to a great extent for the Infantry, reserving the first-class roads for heavy guns and motor transport. All traffic being now compelled to use the first-class roads, the two Divisions had to move each in two columns for the march on the 25th.

On the 27th each Division again moved forward in two columns. The dirty weather, very muddy roads, and the heavy traffic encountered—accentuated by the overturned lorries left inconveniently by the enemy—made the march that day a real hardship for the men; even the first-class roads were now in a very bad condition.

The general direction of the Corps advance was now changed half right, and the boundaries between Divisions were rearranged so that each would have one first-class road as

follows :---

2nd Canadian Division — Namur - Andenne - Chey - Havelange-Maffe-Barvaux-Villers St. Gertrude-Grand Menil-Hebronval-Bovigny-Beho.

1st Canadian Division — Lauze - Solieres - Modave-Hamoir - Werbomont - Basse Bodeux - Grand

Halleux - Vielsalm - Petit Thier.

Commencing with the march of November 28, each Division moved in one column in depth, owing to lack of billeting accommodation in the sparsely inhabited hills of the Ardennes and Eifel. The three Brigade groups of each Division usually moved one day's march apart.

By nightfall on November 27 the leading troops of the 1st and 2nd Canadian Divisions had reached Seilles and Coutisse respectively, and on the 28th reached Clavier and Mean

respectively.

The difficulties of bringing forward supplies had meanwhile become more and more serious. Railhead was still west of Valenciennes, necessitating a haul of over 100 miles by road to the leading troops, and mention has already been made of the congestion of traffic on the roads. As a result, supplies had been reaching the Units later each day, and the safety margin ordinarily maintained, of one day's rations in hand, had been lost. The climax was reached on November 28,

when the rations for that day were received just as the day's march was commencing—in fact some of the Units of the 1st Canadian Division had already passed the starting-point. As the same situation recurred on the 29th, it was necessary to cancel the march of the 1st Canadian Division for that day.

The rations of the 2nd Canadian Division were, however, received in time, and the leading troops reached Villers St.

Gertrude by nightfall.

By securing extra lorries and utilising the lorries of the Canadian Machine Gun Corps for supply work the situation was improved sufficiently to permit of the continuation of the march on November 30, the leading troops of the 1st and 2nd Canadian Divisions reaching Ferrieres and Regne by nightfall.

On December 1 the 1st Cavalry Brigade (1st Cavalry Division) came under my orders, and I assumed command of the Cavalry screen on the Canadian Corps front. The 2nd Canadian Division resumed the march that day, the head of the leading troops reaching Beho, and Corps Headquarters moved forward to Vielsalm. The 1st Canadian Division stood fast, owing to the situation as regards supplies being still acute.

The leading troops of the Canadian Corps crossed the German frontier on the morning of December 4 at 9.00 a.m., the 1st Canadian Division at Petit Thier and the 2nd Canadian Division at Beho, with flags flying and bands playing. No advance had been carried out on December 2 and 3, but the marching Divisions had moved forward and concentrated prior to the subsequent crossing of the frontier. I personally entered Germany, with the Divisional Commander of the 1st Canadian Division, at the head of the main body at Petit Thier at noon that day.

The completion of the march to the bridge-head at Cologne was carried out during the subsequent eight days, in weather that was generally very bad, without incident or trouble other than that of supplies. By the night of December 10 the 1st Cavalry Brigade had reached the west bank of the Rhine and posted guards at all the crossings, and the 1st and 2nd Canadian Divisions had reached points just west of Cologne and Bonn

respectively.

The German people have been well schooled regarding the attitude to be adopted towards conquering troops, and our presence was marked by a quietness approaching indifference on the part of the inhabitants. Whatever apprehensions they may have entertained were quickly set at rest by the exemplary conduct of the men of the Corps.

December 13 was set as the date on which the Allies would cross the Rhine at all points to be occupied, and on the 11th and 12th the leading Divisions concentrated as far forward as

possible in their respective areas prior to crossing.

On December 12, the 1st Cavalry Brigade crossed the Rhine at Bonn, and reached the line Obercassel-Moholz-Sieburg-Altenrath-Rosrath-Lustheide (exclusive), establishing control posts on that line, and on the following morning the Canadian Corps crossed and took their place, while the Cavalry pushed on to take up positions on the perimeter of the bridge-head.

The 1st Canadian Division crossed by the southern bridge at Cologne, the passage being witnessed and the salute taken by General Sir Herbert Plumer, Commanding the Second British Army; and the 2nd Canadian Division crossed by the Bonn Bridge, where I took the salute. The leading troops of the respective Divisions crossed at 9.30 a.m.

The weather was bad, the day being dark, and a steady rain poured down throughout. In spite of this the spectacle was magnificent. The smart, sturdy Infantry, with bayonets fixed, marching perfectly, with colours flying and bands playing our national airs, was an impressive sight, which did not fail to bring home to the German population the great potential strength of our Army.

On December 14 and 15 the Canadian Corps moved forward and relieved the Cavalry screen on the southern half of the perimeter of the Cologne bridge-head, taking over control of the roads and railways leading into the occupied territory, and being disposed in depth for its defence. I moved my Headquarters to Bonn, the Headquarters of the 1st Canadian Division being at Cologne and those of the 2nd Canadian Division at Bonn.

During the remainder of the year nothing of great moment occurred. The time was employed in preparing the men for the resumption of their duties as citizens. Great stress was laid on the educational work of the Khaki University of Canada and on the professional re-education carried out under arrangements made by General Headquarters. Each Unit found teachers from their own ranks, and lecturers from both Britain and Canada addressed large audiences on varied subjects.

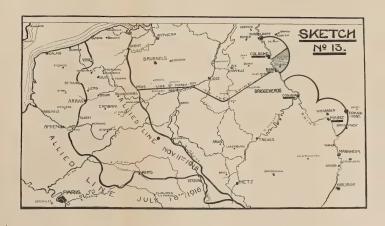
A wholesome interest was fostered and maintained in all forms of sport.

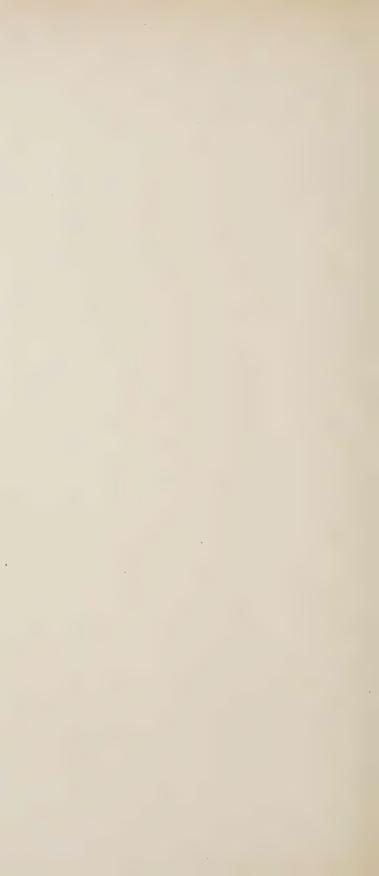
The greatest possible freedom from duty was allowed all ranks, and everything was done to brighten what all hoped would be their last Christmas spent away from Canada.



The 22nd Canadian Infantry Battalion French Canadians crossing the Bridge at Bonn. The Canadian Corps Commander is taking the salute on the left.







THE CANADIAN CORPS, ORGANISATION, ADMINISTRATION AND FUNCTIONS.

INDEX. PAGE GENERAL OBSERVATIONS 195 PART I. ORGANISATION-196 Infantry Artillery 198 . . 198 Engineers Cavalry and Cyclists 199 Canadian Army Service Corps 199 Medical Services 201 Ordnance Services 203 204 The Signal Service ... 205 Gas Services ... 205 Veterinary Services ... 205 Pay Services 205 Postal Services 205 Chaplain Services PART II. ADMINISTRATION-207 The General Staff 213 The Administrative Staff Some Individual Officers 217 PART III. FUNCTIONS— 221 Infantry ' 240 Artillery . . 244 Engineers . . 250 Cavalry and Cyclists 250 Canadian Army Service Corps 259 Medical Services 262 Ordnance Services ...

(642)

0

194 Index

PART III.—c	ontd.						PAGE
Th	e Signal Service						264
Ga	as Services						267
Ve	eterinary Services	· .					268
Pa	y Services						270
Po	ostal Services						270
Cł	naplain Services						272
PART IV.	Miscellaneous	Units					
TI	ne Corps Survey	Section					273
	he Y.M.C.A.						274
TI	ne Corps Reinford	cement	Camp				275
Appendice	:S—						
i.	Composition of a	. Canad	lian Di	vision			276
ii. (a)	Corps Troops as	on No	vember	11, 19	19		277
(b)	Canadian Corps	Heavy	Artille	ry			278
iii.	Synopsis of som	e Estab	olishme	nts			279
iv. (a)	Organisation of	the Me	dical Se	ervices	• • .		280
(b)	Organisation of	the Or	dnance	Service	es		281
(c)	Organisation of	the Ve	terinary	y Servi	ces		282
(d)	Organisation of	the Ga	s Servi	ces			283
(e)	Organisation of	the Pa	y Servi	ces			284
(<i>f</i>)	Organisation of	the Ch	aplain (Service	s		285
v. (a)	Organisation of	the Sta	.ff at Co	rps He	adquar	ters	286
(b)	Organisation of	f the	Genera.	l Staff	at C	orps	
	Headquart						287
(c)	O .						288
(d)			_			ı	289
(e)	Organisation of	Machin	ne Gun	Branch	1		290
vi.	Organisation of	a Divi	sional S	Staff			291
vii.	Meaning of Init	ials					292
viii.	Report on their	Branc	hes by	" A." a	and " C) "	294

The Canadian Corps, Organisation, Administration and Functions.

GENERAL OBSERVATIONS.

The word "Corps" is an abbreviation of the term "Army Corps," and at present is a very uncertain and indefinite military term. In the military sense to-day it means a formation consisting of a Headquarters, from two to six Divisions, and a varying number of Corps Troops composed of all arms, and is ordinarily commanded by a Lieutenant-General. Army Corps in the British Army during this war have never been staple units, varying month by month (and often day by day) as to their composition, Divisions and Corps Troops being very frequently transferred from Corps to Corps.

The Units composing the Canadian Corps have, however, been so far fortunate as to have been mostly under the same Commander and administered by the same Staffs. Canadian Units and Formations have been taught to look upon themselves as belonging to the Canadian Corps, and whilst away from the Corps have been spoken of as attached to other Corps; and, in consequence, a very true *esprit de corps* has sprung up amongst all Canadian Units administered by the Canadian Corps Headquarters.

This report deals with the Canadian Corps in the meaning of all Canadian Units administered by the Canadian Corps Headquarters on the date of the Armistice. This date has been chosen as the Corps was at the zenith of its efficiency at that date, and had absorbed lessons learned during three years and nine months of the hardest fighting that the world has ever known. To describe the evolution of the Corps and its Staffs from the time that General Alderson formed his first Corps Staff in September, 1915, to the date of the Armistice, would practically mean writing a history of the Canadian Corps, an operation which is being carried out by a special committee of officers elsewhere.

(642)

The War Establishments show the composition of Units of the Corps; the intention of this report is to show more especially the general internal organisation of Units, their functions, and in what way they are dealt with and administered.

In describing the functions of the Staff, the Corps Headquarters Staff has been taken as the basis. Divisional Staffs on a smaller scale are similarly allotted their duties, often with slight variations; the report would, however, become too involved if the duties of each Divisional and Brigade Staff Officer were described in detail.

The functions of the various branches of the Staff and the functions of the various arms are also described in considerable detail, though it must be realised that it is impossible to touch upon the thousand and one details never thought of in the instructional manuals which the staffs have to deal with in war.

PART I.—ORGANISATION.

For the detailed composition of the Units of the Canadian Corps *vide* Canadian War Establishments, a working synopsis of some of which is attached (Appendix III.) in order to render this report as comprehensive as possible.

At the date of the Armistice the following Formations and Units were administered by the Staff at Canadian Corps Headquarters:—

Canadian Corps Headquarters.

The four Canadian Infantry Divisions (vide Appendix I.). Corps Troops (vide Appendix II.).

For both fighting and administrative purposes these are the Formations and Units into which the Canadian Corps is divided.

Generally speaking, however, the Units of the Corps can be divided into Infantry, Artillery, Engineers, and Cavalry as the fighting troops, with the C.A.S.C., Medical and Ordnance and other services as the non-combatant but equally important arms, and it is under this classification that they will be discussed in this paper.

INFANTRY.

Under Infantry may be classed—

- (a) The Infantry of the Line.
- (b) The Machine Gun Units.
- (c) The Light Trench Mortar Units.

(a) The Infantry of the Line is organised into Brigades, which is the largest Unit, composed entirely of Infantry soldiers; the Brigade consisting of four Battalions and one Light Trench Mortar Battery. The Brigade is administered by a Staff and is under the command of a Brigadier-General.

The Infantry Battalion is composed of sixteen Platoons organised into four Companies, each Platoon under the command of a subaltern officer. The Battalion is commanded and administered by a Lieutenant-Colonel, who has under him a Headquarters which consists of:

- i. Transport personnel, which is responsible for such duties as hauling rations from the Battalion Head-quarters to the men in the line or in billets, forming dumps of rations and ammunition in the forward areas, carrying the light machine guns on the line of march, carrying reserve ammunition and bombs, and so forth.
- ii. Administrative or Orderly Room personnel, who keep the records of the Battalion and who deal with the Staff of the Brigade.
- iii. Police.
- iv. Medical personnel, who assist the attached Medical Officer in the performance of his duties.
- v. Signalling personnel, who are responsible for the communication between the Platoons and the Battalion Headquarters.
- vi. Certain training and instructional personnel, who assist the Commanding Officer and Company Commanders in the work out of the line.
- vii. Tailors, shoemakers, postmen, etc., whose designations speak for themselves.

The Platoon is the fighting Unit and consists of about 40 all ranks. It is organised into two distinct parts which must work together, viz., light machine gunners and bayonetmen. The latter have subsidiary arms, such as the bullet, bomb, rifle grenade, etc., but, generally speaking, the bayonet takes the position and the machine guns hold it.

(b) The Machine Guns (as opposed to the light machine guns) are organised into Battalions, each Battalion consisting of three Companies in each of which are four Batteries, each

of eight guns. The Battalion is commanded by a Lieutenant-Colonel, who has a very similar Headquarters to that of an Infantry Battalion. The Battery is, however, the tactical Unit, and is self-contained as regards command and transport.

There are also in the Corps two Motor Machine-Gun Brigades, each of five eight-gun Batteries.

(c) A Light Trench Mortar Battery forms part of each Infantry Brigade. It is composed of Infantry personnel transferred from their Units, and contains eight mortars organised into four Batteries, each of two mortars, and each under the command of a subaltern officer.

THE ARTILLERY.

Artillery Batteries are organised into sections consisting of two guns, each section being commanded by a subaltern.

The administrative Unit is the Brigade, where the Headquarters function all important matters outside the work in action and the training for action.

The Divisional Ammunition Column is divided into three sections and the section into sub-sections. Each section is commanded by a Captain and the sub-sections by subaltern officers.

THE ENGINEERS.

Corps troops may vary from 20,000 to 50,000 men, and to carry out the Engineer Services required the Chief Engineer has at Corps Headquarters a C.R.E. Corps Troops, assisted by an Adjutant, who administers all Canadian Engineer Units and attached Royal Engineer Units other than those of Divisions. The Canadian Engineer Units working under the C.R.E. Corps Troops are five Army Troops Companies for general engineering work, two Tramway Companies for construction, maintenance and operation of tramways, and one Artisan Company made up of returned casualties of low categories.

With each Division to carry out the Engineer Services required is an Engineer Brigade, consisting of three Battalions Canadian Engineers, and one Bridging Transport Section. The Brigade is commanded by a Colonel, with a Staff consisting of a Brigade Major, a Staff-Captain "A" and "Q," and a Staff Captain (Stores and Transport).

Each Engineer Battalion is divided into a Headquarters and four Companies. Three of these Companies are organised for general engineering work, and the fourth for tunnelling and mining work. Attached to each Engineer Brigade is a Bridging Transport Section, which carries sufficient pontoon and other bridging equipment to enable 225 feet of "medium bridge" to be constructed. "Medium bridge" will carry field artillery, cavalry in half sections, or infantry in fours.

THE CAVALRY AND CYCLISTS.

The Canadian Light Horse is a Cavalry Regiment composed of a Headquarters and three Squadrons, each under the command of a Major. Each Squadron is divided into four Troops, each of about 35 all ranks under a Subaltern Officer. The Cavalry Regimental Headquarters is similar, on a smaller scale, to a Battalion Headquarters, and administers the Regiment, dealing direct with the Corps Staff. The Troop corresponds to the Platoon, and the men are armed with the rifle and bayonet and the sword, there being a section of light machine guns with each Troop.

Besides the Canadian Light Horse there was on November 11, 1918, a Squadron of the R.N.W.M.P. with the Corps, which was organised as a Squadron of Cavalry and which dealt for administrative purposes direct with Corps Headquarters.

A Corps Cyclist Battalion was also always administered as a part of the Corps Troops. This Battalion consisted of 16 officers and 305 other ranks, and was organised as a Headquarters and three Companies on similar lines to an Infantry Battalion.

THE CANADIAN ARMY SERVICE CORPS.

The Canadian Army Service Corps under instructions from "Q" Branch is responsible for the arrival from railhead of—

- (a) Ammunition at the Ammunition Refilling Points, where it is taken over by the Divisional Ammunition Column, and
- (b) Consumable supplies at the Headquarters of Units of the Corps.

To compete with this enormous duty there are two distinct types of transport under the Canadian Army Service Corps, viz.:—

- i. The Mechanical Transport.
- ii. The Divisional Train.

The Mechanical Transport of a Corps may be grouped under three heads—

- (a) Mechanical Transport vehicles on charge of Mechanical Transport Units, which form a permanent part of the Corps. These Units are:
 - 1 Corps Troops Mechanical Transport Company.
 - 1 Divisional Mechanical Transport Company for each Division.
 - 7 Motor Ambulances per Field Ambulance.
- (b) Mechanical Transport on charge of Mechanical Transport Units which, though not permanently forming part of a Corps, are in the Corps Area, and at the disposal of the Corps, subject to being moved from one Corps to another when the tactical situation makes it advisable. These Units are:

Siege Battery and Heavy Battery Ammunition Columns.

Army Brigade Field Artillery Park Sections. Auxiliary Mechanical Transport Companies.

Each Corps has a Headquarters Company attached to Corps Heavy Artillery, also known as Corps Siege Artillery Park. It is composed of a Commanding Officer (Major), an Adjutant, a Workshop Officer and two Transport Officers. Siege Battery and Heavy Battery Ammunition Columns, on arriving in a Corps Area, report to the Officer Commanding Corps Siege Artillery Park by whom they are administered and operated while in the Corps.

(c) Mechanical Transport vehicles on charge of non-Mechanical Transport Units such as Corps and Divisional Headquarters, Signal and other Engineer Units, etc., which require a certain number of mechanical transport vehicles to carry out their work.

Each Corps has a senior Mechanical Transport Officer (S.M.T.O.), who administers the Mechanical Transport Units and is responsible for the control, maintenance, and economical employment of all the mechanical transport in the Corps.

In addition to the above Units, which constitute the normal mechanical transport of a Corps, the undermentioned Mechanical

Transport Formations have recently been authorised for and added to the Canadian Corps:—

1 Canadian Motor Machine Gun Mechanical Transport Company.

1 Canadian Engineer Mechanical Transport Company.

The latter Unit is divided into a Headquarters, two Headquarters sections and four Divisional sections. The latter are detailed for duty with the four Engineer Brigades.

The Divisional Train carries the consumable supplies from the Refilling Points to the Headquarters of Units and is divided into four Companies, one for the Divisional Troops and one for each Brigade of the Division.

Maintenance.—All Mechanical Transport Formations are provided with a mobile workshop, a workshop officer, and a staff of artificers, to carry out repairs and keep the vehicles in running order. Field Ambulances are attached for maintenance and repairs to the Divisional Mechanical Transport Company workshops. Vehicles in charge of non-Mechanical Transport Units are attached for maintenance by the S.M.T.O. to the various Mechanical Transport Mobile Workshops in the Corps. Vehicles that require repairs too extensive to be carried out in the mobile workshops without delaying the ordinary current work, are evacuated to the heavy repair shops at the base or on the Lines of Communication, and replacements are automatically supplied.

Control.—All the mechanical transport in a Corps is con trolled by the Corps through the S.M.T.O., who receives his instructions from "Q" Branch of the Corps Headquarters Staff. In spite of their designation, Divisional Mechanical Transport Companies are Corps Troops and in no way under the control of the Division whose number they bear. There is a Headquarters to these Units known as Canadian Corps Mechanical Transport Column composed of a Major, Adjutant, Demands Officer (M.T.), and Artillery Officer. This Headquarters works in conjunction with the S.M.T.O. and has its offices with him, thereby doing away with a lot of unnecessary clerical work and correspondence and giving the quickest of service.

THE MEDICAL SERVICES.

Individual officers of the Medical Services are attached to practically every Unit of the Canadian Corps. These officers are called the Regimental or Battery Medical Officers and have a small staff of C.A.M.C. personnel under them for water or first aid purposes.

Apart from these Regimental Medical Officers, the following Units are organised:—

Field Ambulances.—There are three Field Ambulances with each Division and one with the Corps at large. The latter operates the Corps Rest Station.

A Field Ambulance is a highly mobile Unit which moves with, and just back of, the front line. It has 11 officers, including a Dental Officer, and 238 other ranks, seven motor ambulance cars, three horsed ambulance wagons, and complete tentage and transport for its equipment.

These Units are so organised as to permit their division into three sections, each complete in itself in every way. By this means a Field Ambulance Unit can operate one, two, or three dressing stations simultaneously.

Rest Stations, Corps and Divisional.—These stations are a development, for most part, of trench warfare, in which troops remain stationary for long periods. They are operated by Field Ambulances. Their locations while impermanent, unlike locations of Field Ambulance Dressing Stations, are not changed as a rule while the Corps occupies a certain sector of the Front. They are usually located in a back part of the Corps or Divisional area.

They are organised so as to provide accommodation and medical care for minor cases and include special clinics for certain classes of cases.

Corps Dental Laboratory.—(The Dental Service of the Corps is an integral part of the Medical Services.) A Corps Dental Laboratory is peculiar to the Canadian Corps and has proven a valuable adjunct of the Service. It is organised as the principal dental centre of the Corps, and has a complete staff of dental mechanics for the manufacture of dentures of all sorts.

Motor Ambulance Convoy.—This is a Mobile Medical Unit with three officers and 122 other ranks. It has 50 motor ambulance cars and its organisation includes a complete mobile workshop for all ordinary repairs.

Sanitary Sections.—A Sanitary Section is a Mobile Medical Unit with one officer and 27 other ranks. Its organisation provides for the operation of a workshop where sanitary equipment is constructed.

THE ORDNANCE SERVICES.

The Ordnance Services of the Canadian Corps are directed by the A.D.O.S. at Corps Headquarters, who has as his assistants a D.A.D.O.S. and an officer for ammunition duties, and a staff of one Warrant Officer, one Staff Sergeant, and two Clerks. The A.D.O.S. also administers all C.O.C. personnel in France, outside the Corps.

With each Division there is a D.A.D.O.S. with the rank of Major, an Ordnance Officer, who is a Captain or Lieutenant, four Warrant Officers and ten other ranks.

With Corps Troops there is a D.A.D.O.S. (Major), an Ordnance Officer, one Warrant Officer, and nine other ranks.

In addition to the above C.O.C. personnel, each Division has an Armourer Sergeant-Major, each Infantry Brigade an Armourer Quartermaster-Sergeant, and each Battalion an Armourer Staff Sergeant, all of whom belong to the C.O.C.

Each Divisional Armourers' Shop also has two watchmakers for the repair of watches, binoculars, compasses and clinometers. Ordnance Corps Troops also has two watchmakers.

For the repair of guns (Field, Heavy and Siege) and their carriages and mountings, and repair of horse transport vehicles of all kinds, there are in the Corps two light Ordnance Mobile Workshops, and a Medium Ordnance Mobile Workshop.

These Ordnance Mobile Workshops are each in charge of an Inspector of Ordnance Machinery with a Staff of artificers, turners, fitters, hammermen, wheelers, etc.

Each Brigade of Field Artillery and each Battery of Heavy or Siege Artillery has an Armament Officer, C.O.C. attached for minor repairs and the general supervision of the mechanical details of their equipment.

No stocks are maintained at the Front other than a small reserve of box respirators and containers, steel helmets, a few odds and ends in constant demand such as camp kettles, etc., and a few rifles in the Divisional Armourers' Shops. Each Army, however, has a Gun Park where a stock of guns and carriages, trench mortars, machine guns and spare parts and accessories is maintained.

THE SIGNAL SERVICE.

The Canadian Signal Service consists of the following Units:—

One Corps Signal Company.
Four Divisional Signal Companies.
5th Canadian Divisional Artillery Signals.
8th Army Brigade C.F.A. Signal Sub-section.
Canadian Corps Signal School.

The Corps Signal Company includes, besides the Headquarters, one Wireless, two Motor Airline and four Cable Sections, one Heavy Artillery and three Signal Sub-sections for the Canadian Heavy Artillery Headquarters and Heavy Artillery Brigades. Under Corps arrangements two other sections have been organised and attached to the Corps Signal Company for the inter-communication of the Canadian Survey Section and two Tramway Companies.

The Divisional Signal Company includes a Headquarters Section, Wireless Section and two Cable Sections, together with Signal Sections for the Divisional Artillery Headquarters, Artillery and Infantry Brigades, and for the Divisional Machine Gun Battalion. Canadian Engineer Brigade Signal Sections have not yet been authorised, and added to the Divisional Signal Companies.

The Divisional Signal Company is responsible for communication to flanking divisions and all communication to and within the Artillery and Infantry Brigades, and other Units within the Divisional Area.

The Signal Companies are roughly divided into the following branches:—

Telephone and Telegraphs.
Wireless Telegraphy.
Interception and Policing Sections.
Visual Signalling Sections.
Motor-Cycle Rider Despatch Sections.
Pigeon Service.

Airline Sections.

Cable Sections.

Portable Electric Light and Accumulator Charging Section.

Repairs Shops, Motor Cycle and Mechanical Transport. Repairs Shops, Telephone, Telegraph and Wireless Instruments.

THE GAS SERVICES.

The Gas Services have been organised to combat the effects of poisonous gas. Appendix IV. shows how the service extends over the whole Corps. Each Gas Officer has a small staff of other ranks to assist him in his duties.

VETERINARY SERVICES.

The Veterinary Services have officers with formations as shown in Appendix IV. Each of these officers has a small staff of Veterinary personnel under him. The Mobile Veterinary Sections and the Canadian Corps Veterinary Evacuating Station are the Units at which sick or wounded horses receive treatment, and through which they pass for evacuation to the Base, if it is considered inadvisable to treat them in the field.

PAY SERVICES.

The Canadian Army Pay Corps in the Field has to do with the administration of matters relating to Pay and Allowances of all ranks. For the organisation and chain of responsibility *vide* Appendix IV. Each Paymaster has an other rank attached to him for clerical work, and the Field Cashiers have a small staff.

POSTAL SERVICES.

There are 28 Army and Field Post Offices with the Canadian Corps, all of which are mobile, located as follows:—

Canadian Corps Headquarters		1
Canadian Corps Troops		1
Canadian Corps Reinforcement Ca	amp	1
Divisional Headquarters		4
Divisional Artilleries		5
Infantry Brigades		12
Railhead A.P.Os		4

Each Field Post Office looks after the incoming and outgoing correspondence for the formation to which it is attached, and also for any troops which may be temporarily administered by that Division.

THE CHAPLAIN SERVICES.

There is an Assistant Director Chaplain Services, a Deputy Assistant Director Chaplain Services, four Senior Chaplains, one Corps Chaplain and 90 Chaplains in the Canadian Corps. They are distributed as shown in Appendix IV., g., and are of all denominations, being distributed to Units as far as possible according to the denomination of the personnel.

PART II.—ADMINISTRATION.

The Canadian Corps is commanded by a Lieutenant-General, under whose supervision it is both fought and administered.

In battle each fighting unit is led and fought by its own officers, but in order to co-ordinate the effort the plans are drawn up and worked out by the Staff in consultation with the commanders of the fighting formations and units. The branch of the Staff which deals with the actual plans for a battle or for defence is called the General Staff Branch.

There are of necessity other branches of the Staff which are responsible for the administration of the force, the principal being—

(a) The Quartermaster-General Department.

(b) The Adjutant-General Department.

The former in close liaison with the General Staff, amongst other duties, deals with supplies of rations, ammunition, horses and equipment and the transportation of same, transportation of units from one part of the war zone to another billeting of troops and so forth; the latter in close liaison with the Quartermaster-General Department, deals principally with supply of personnel, promotions and decorations, organisations of medical services, disposal of prisoners of war, and, generally speaking, all matters referring to personnel.

For fighting purposes the Corps is divided into very small units, commanded by junior officers; thus there are 768 Infantry Platoons in the Corps, which parties are considered the largest that one man can be expected to direct in battle; on the other hand, it is found that one officer can personally supervise the training and administration of 16 of these Platoons, which number constitutes a Battalion. Four Battalions are grouped to form a Brigade, and it is considered necessary to have a Staff to assist the Brigade Commander to fight and administer his Brigade; thus the Brigade is the smallest unit with a Staff; and the Brigade Staff works in the three main branches as described above. The Divisional Staff co-ordinates the work of the three Brigade Staffs, and the Corps Staff of the four Divisional Staffs. In this manner the Staff work is eventually centralised at Corps Headquarters.

As regards the Auxiliary Arms, the Artillery, Machine Guns, and Engineers, they are administered by their own Staffs, working in very close liaison at Divisional and Corps Head-quarters, many matters being merged together in the main branches of the Staff at Corps and Division.

Diagrams showing the liaison between Commanders and the Staffs are attached as Appendix IV. It must, however, be realised that the liaison cannot be completely shown, all the branches down to the lowest appointment being in the closest touch.

As this section is one on Administration, it is proposed to deal with the various functions of the Staff under this heading. In saying that the Corps is administered by the Staff, it must be realised that it is administered down to the smallest Units which it is considered are able to administer themselves with the help of the Staff, such as the Cavalry Regiment, the Infantry Battalion, the Artillery Brigade, and the Engineer Battalion.

THE STAFF.

The General Staff, constituted as shown in Appendix IV. is responsible for—

- (a) Obtaining and communicating to responsible commanders information:
 - i. Of their own forces.
 - ii. Of the enemy and the country.
- (b) Conveying the instructions and orders of the responsible commanders to those who have to act on them, and assisting the latter to carry out these instructions and orders in such a manner as will conduce to the successful issue of the operations.
- (c) Furnishing timely information to the Staff and administrative services and departments as to the situation and probable requirements of the troops.
- (d) Keeping necessary records both for present and for historical purposes.

It is also the duty of the General Staff to study the situation constantly and to be prepared to suggest plans of operation to commanders.

The information required under (a) i. comprises everything that a commander may require to know to enable him to decide what it is possible for his own troops to undertake. For this purpose the General Staff must always be prepared to lay before him, in concise form, statements showing not only the position, strength, and movements of all parts of his forces, but also information regarding such important matters as the quantities

of supplies, ammunition and stores available; the possibilities of renewing them; the casualties that have been suffered; the fatigue and hardships that have been undergone, and the amount of "remaining energy" estimated to be still available.

It is the duty of the senior General Staff officer in each Command to arrange for the collection and recording of this information, relieving the commander of all concern on this account.

The information must be compiled partly by means of enquiry from other branches of the Staff; partly by arranging for necessary reports, verbal or otherwise, from subordinate commanders; and partly by detailing officers for the special purpose of observation, and providing them with the means of transmitting the results.

When information reaches Corps Headquarters, the Brigadier General, General Staff, is primarily responsible that it is laid before the Corps Commander without loss of time, that all branches and sections are acquainted with it, and that, if necessary, it is transmitted to subordinate commands. Whenever information is "short circuited" by a subordinate member of the General Staff, the senior General Staff officer must be informed of the action taken.

After a plan has been decided it becomes the duty of the General Staff, as stated in (b) and (c), to provide for its successful execution, not merely by conveying to all concerned the necessary orders, instructions and information, but by foreseeing and providing for difficulties that may arise, and generally by giving every possible assistance to those who have to carry the plan through. Constant touch must be kept with all parts of the forces in order that commanders may be quickly informed of any change in the situation; so that as a matter of fact the B.G.G.S. is the Chief Staff Officer at Corps Headquarters, and is the responsible adviser of the Corps Commander on all matters affecting military operations, training and staff duties, through whom he exercises his functions of command, and by whom all orders issued to field Units will be signed (except Corps Routine Orders).

The B.G.G.S. is responsible to the Corps Commander for the working out of all arrangements and for the drafting of detailed orders regarding:—

All military operations within the area of the Corps operations.

Selection of lines of operations after the general idea has been issued by the Army Headquarters.

All plans for the concentration, distribution and movement of the Corps by rail or road in the theatre of operations.

General allotment of areas in which divisions and brigades are to be quartered.

Acquisition and distribution of information about the enemy, the country and its resources, secret service, ciphers, and the care and disposal of captured documents.

Provision and distribution of maps.

Preparation of reports, despatches and diaries relating to the above.

Training of the Corps for Battle.

The General Staff are responsible that with due regard to secrecy, constant and accurate information as to the situation and probable requirements of the troops is furnished to the A.G.'s and Q.M.G.'s branches of the Staff in sufficient time to enable these requirements to be met. When the military situation demands, it becomes the duty of the General Staff to advise the Corps Commander or other commanders as to the position, movements, or disposal of all impedimenta, including supply columns and parks and other L. of C. Units. The General Staff must, therefore, keep themselves constantly informed as to the distribution of all administrative Units and the proposals of the other branches of the Staff with regard to them.

For the purpose of performing these duties, the General Staff, under the B.G.G.S., is divided into three distinct branches:—

- i. The Operations or "O" Branch.
- ii. The Intelligence or "I" Branch.
- iii. The Training or "T" Branch.

The Operations Branch, under the instructions of the G.S.O. 1st Grade, then becomes responsible—

For the drafting of the necessary orders and instructions for the issue of which the General Staff is responsible; drafts which should be compiled by other branches of the Staff, and by the representatives of the Artillery and Engineers, being obtained from those concerned.

For the timely preparation of statements of information for circulation by "O" throughout all branches of the Staff and to subordinate commanders.

The Intelligence Branch classifies and collates all information regarding the enemy, however gained, especial importance being attached to the source from which it was obtained, and is responsible for its communication to the Operations Branch of the General Staff.

The Intelligence Branch is also charged with the duty of correcting and supplementing, during the campaign, all the information originally placed at the disposal of the Corps Commander.

In battle, the Intelligence Branch must consult with the Operations Branch as to measures to be taken to obtain information by the action of troops and is responsible that systematic arrangements are made through Operations Branch for the continuous observation of the enemy's movements, and for obtaining and sifting information. The points to which attention should be specially directed are turning and enveloping movements, the position and strength of the enemy's reserves, concentration of force for attack, the approach of reinforcements, and signs indicating the exhaustion of ammunition, inclination to retire, or disinclination to advance.

Intelligence Branch should also arrange with Operations Branch for enterprises with a view to tapping the enemy's telegraphs, telephones and signals, and intercepting his despatch riders.

It is the duty of the Intelligence Branch to prepare a summary of the intelligence received, with any deductions which it is possible to make therefrom, for the information of the head of the Intelligence Branch. The latter is responsible for keeping the Operations Branch continually in possession of all information which is of value to the Commander in framing his plans.

The Intelligence Branch must also be prepared to record on the "maps of the situation," supplied by the Topographical Section, I., such information as is available regarding the enemy's forces and their movements, according to the latest data received or deduced, care being taken to discriminate between information that is believed to be accurate and what is presumed or inferred.

At the Headquarters of a Division the head of the Intelligence Branch is responsible for piecing together the items of information as they are received. He must deduce from information received the probable trend of events and should suggest the points which will repay further investigation. The senior General Staff Officer of a Division must rely on the head of his own Intelligence Branch for the latest information regarding the enemy.

The ultimate disposal of prisoners of war is a matter for the A.G.'s Branch of the Staff. It lies with the Intelligence Branch, working in conjunction with the section of the A.G.'s Branch concerned, to ensure that men captured from the enemy are not passed to the rear before they have been subjected to any interrogation which may be thought advisable.

Information obtained from prisoners and inhabitants is often of special importance, particularly as regards the enemy's order of battle. To obtain the best information from them, the interrogator must have a good knowledge of the language, and must be thoroughly acquainted with the organisation and routine of the enemy's army, and the names of its principal commanders; for the more knowledge he displays the more ready will be the response. It is therefore desirable that the detailed examination of prisoners and inhabitants should be conducted as soon as possible by the General Staff.

The capture of important documents will at once be notified to Intelligence Branch at Corps Headquarters, so that instructions may be issued, if necessary, for their further examination and final disposal.

The Intelligence Branch is responsible, in consultation with the A.G.'s Branch of the Staff, that arrangements are made for the collection of printed matter or manuscripts found in places lately occupied by the enemy, for searching prisoners and the enemy's killed for concealed documents, such as orders, instructions and memoranda; and with the co-operation of the medical authorities for doing the same to his sick and wounded.

The Intelligence Branch is further responsible for the issue of maps to all formations.

The Secret Service Sub-section has been inaugurated, which has for its object the prevention of espionage and communication amongst enemy agents, to deal with which it has certain powers. These are laid down in the Staff Manual, F.S.R., Part II., etc. One of them, however, is the control over all civilians in the Corps area.

The B.G.G.S. therefore, besides having the allotment and co-ordination of Staff Duties for the whole Corps Headquarters, has the officers shown in Appendix V. under his immediate control to aid him in carrying out his three main duties, besides sundry others who are attached to the Staff, including two learners.

The third duty of the General Staff, viz., Training, has during the war become more and more important, as at least 60 per cent. of the time, Units are "at rest" or in training. All this training has to be co-ordinated and further special arrangements have to be made to train officers and N.C.O.'s in their duties as such. To allow of this, schools for all arms have been organised, special establishments have been allowed, and very good work has been done. The schools which were in existence at the time of the Armistice were:—

The Canadian Corps Infantry School.

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,, ,, ,, Signal ,, ,, ,, Gas ,, ,, ,, Police ,, ,, ,, Engineer ,, ,, ,, Machine Gun School.
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The two latter being combined with the Engineer and Machine Gun Wings respectively of the Canadian Corps Reinforcement Camp.

Additional to these each Division had organised a school running concurrently with its Wing at the Canadian Corps Reinforcement Camp.

It is the special duty of the General Staff to keep "Q" Branch informed of the projected movement of troops in order that the necessary co-ordination of arrangements for maintenance may be made and decisions given as to the relative urgency with which supplies, stores, and war material are required.

In the allotment of quarters, the General Staff, after conferring with "Q" Branch, if the tactical situation permits, decides, under the orders of the Corps Commander, the general areas to be occupied.

Further, the General Staff must be prepared to assist "A" Branch by supplying information in regard to such matters as special steps to be taken in connection with the medical and sanitary services, and so forth.

In fact, the great secret of efficient General Staff work is that a very true liaison must be kept by the General Staff with not only "A" and "Q" Branches of the Staff, but also with the Staffs of the subordinate formations and with the Staffs of the Artillery and Engineers.

Lastly, there is under the Intelligence Branch a sub-section of the Canadian Corps Survey Section known as the Topographical Section. This Topographical Section supplies the necessary information on maps to all formations in the Corps.

The General Staff has in this War had to deal with many strange children of the War, such as tanks, gas, aeroplane developments, sound ranging section, etc., but on the whole the duties of the General Staff have remained such as laid down in the old Staff Manuals of 1912. The principal change on the General Staff has been the tremendous development of the Intelligence Branch, a chain of "I" officers and other ranks being formed which reaches right down to Battalions.

The most important duty of the General Staff, therefore, is the early promulgation of the Intention to all branches of the Staff, *i.e.*, to every officer shown in Appendix V., so that their various branches can get ready with Administrative, Artillery and Engineer programmes at the earliest possible moment.

THE ADMINISTRATIVE STAFF.

The chart showing the channels of the Administrative Staff is given in Appendix V.

The Administrative Staff is divided into two distinct branches, "Q" Branch and "A" Branch, each maintaining a close liaison with the other and with the General Staff. The work of the whole is co-ordinated by the D.A. and Q.M.G., who advises the Corps Commander on all administrative matters, which, of necessity, must be compatible with the situation as represented and advertised by the General Staff.

"Q" BRANCH.

"Q" Branch is the portion of the Staff dealing with the duties carried out by the Q.M.G.'s Department at General Headquarters. Most of the officers with whom the A.Q.M.G. deals are shown under his initials in Appendix V.

Generally speaking, the duties are as follows:-

Details of all moves of troops in the Corps.

Distribution in detail of quarters, and, when necessary, erection of hutting and provision of tentage, or hiring of land and buildings.

Supply of the following:-

Food, forage, petrol oils, and light.

Water.

Remounts.

Ammunition, bombs, Very lights, etc.

Equipment, clothing and stores of all kinds.

Stationery.

Transport of all the above supplies to the troops.

Railway and Tramway administration.

Requisition.

Control of traffic at all times.

Arrangements for bathing and laundries.

Collection of dripping.

Arranging for canteens.

Listing and disposal of trophies of war.

Investigation of claims, both of inhabitants and of all ranks.

Furnishing necessary returns of all the above.

Courts of Enquiry into any of the above when necessary.

Registry of Documents.

Rendering proper accounts for expenditure of an abnormal character.

Preparation of reports, despatches and diaries relative to all of the above.

Drafting of Routine Orders and instructions in connection with the above.

Veterinary services.

To go into great detail on all these duties would fill a volume; many of them, such as the arrangements for bathing, laundries, canteens, etc., are products of this war, and special staffs have had to be formed to organise the work; many of them will again be met with under the functions of the various services and departments.

It will, however, be noted that whilst the General Staff deals directly only with the fighting arms, "Q" Branch of the Administrative Staff deals with all services and departments of the Corps, and it requires an administrative ability of no mean standard to co-ordinate the work of the services and departments, so as to have no hitch in the Corps in the use for which it is intended, viz, fighting.

"A" BRANCH.

"A" Branch is the portion of the Administrative Staff dealing with the duties carried out by the Adjutant-General's Department at General Headquarters. Most of the officers with whom the D.A.A.G. deals are shown under his initials in Appendix V.

Generally speaking, "A" Branch deals with the following matters:—

Administration of Military Law.

Discipline.

Courts of Enquiry.

Boards.

Courts Martial.

Suspension of Sentences.

Rulings and complaints.

Police measures.

Appointment of officers, such as Town Majors, etc.

Transfers, postings, employment and exchange of all ranks.

Leave and passes for all ranks.

Enlistments and discharges.

Applications and enquiries.

Casualties and invaliding.

Supply of personnel, dealing direct with the Canadian Corps Reinforcement Camp.

Interior economy.

Establishments and organisation.

Pay of all ranks.

Disposal of prisoners of war.

Burials and cemeteries.

Ceremonial.

Medical services.

Chaplain services.

Postal services.

Preparation of reports, despatches and diaries relative to all of the above.

These matters have in many cases special officers to look after them, but the whole has to be reviewed and co-ordinated in the "A" office for ultimate submission to the Corps Commander through the D.A. and Q.M.G. It will be noted that in many cases again the General Staff has to be consulted: thus it is necessary that the General Staff notify "A" Branch should an abnormally large operation be contemplated, in order that the Medical Services shall be given instructions, that the Police shall be warned, and that the Reinforcement Camp shall be ready to supply an abnormal number of reinforcements. On the other hand, in the matter of Establishments, the "A" Branch draw up the Establishment and submit it to "G" for criticism, as it is "G" who will have to use it, so that again the essence of smooth and efficient working is good liaison.

Added to these two main Branches of the Staff, the Canadian Corps has an Assistant Military Secretary, whose duties include preparation of correspondence and action in dealing with the following subjects:—

Staff (Officers).—Appointments, including appointments to Headquarters, Administrative Services and Departments, and Personal Appointments (Orderly Officers, A.D.C.).

Attachments.

Learners in Staff Duties.

Certain Regimental Appointments (Officers), e.g.,

Adjutants.

Quartermasters.

Lewis Gun and Intelligence Officers.

Promotions (substantive and acting).—Recommendations for officers of all Arms and Services, except Canadian Army Service Corps, which are dealt with by an officer appointed as "Officer i/c C.A.S.C. Personnel." The promulgation of A.C. and R. Lists and Draft Gazettes received from Canadian Section, G.H.Q. to Divisions and Corps Troops.

Promulgation of Command and Staffs Corps Lists to all concerned.

Gradation and seniority of officers.

Resignations of officers.

Supernumerary Officers, disposal of.

Confidential and Adverse Reports.—All officers.

Honours and Awards.—"Immediate"; preparation of Honours Gazette and disposal of allotments granted for Foreign Decorations.

Temporary Commissions, including administration of allotments for Cadet Commissions notified by Head-quarters, Canadians, through Canadian Section, G.H.Q.

Routine.—Correspondence with divisions, etc., including Imperial divisions attached to Corps on above subjects.

Policy.—Questions of policy initiated by Corps Commander or referred to him, arising out of the foregoing.

These matters normally come under the "A" Branch, but as in the Canadian Corps the work was very heavy in this Branch, a separate office dealing with the Corps Commander through the D.A. and Q.M.G. was inaugurated.

SOME INDIVIDUAL OFFICERS.

There are now only the functions of individual officers to discuss. In many cases their appointment speaks for itself, such as the Courts Martial Officer, who is the Judge Advocate's representative on all General Courts Martial cases and on any Field General Court Martial where the evidence may be complicated, who reviews all proceedings before sending them to Army Headquarters, and so forth.

•Branch Intelligence Officer is a Canadian Corps Officer who lives with the Squadron of the R.A.F. covering the Corps front, and with whom the Intelligence Branch communicates if they wish any particular mission carried out by the R.A.F. This officer is further an expert in Aeroplane Photographs, and transmits any information he may glean at the Squadron Headquarters to Intelligence Branch at Corps Headquarters.

Corps Camouflage Officer is responsible for the designing of camouflage, such as imitation trees for observation posts, camouflage to cover champagne machine gun emplacements, camouflage to mis-shape, etc.

Town Majors and Area Commandants were created to organise the billeting and cleanliness of areas in which troops were placed when out of the line.

Assistant Provost Marshal commands the Corps Military Police, and with his assistants is responsible for their organisation and efficiency and distribution as required. Before action, he is usually supplied with a Road Control Officer who assists him in the control of the traffic. He is in charge of the Corps Field Punishment Station, and superintends the execution of sentences of courts martial when too severe or long to be dealt with in their Units.

His main duties consist of-

Prevention and detection of crime.

Arrest of offenders.

Regularity of road traffic.

Collection of stragglers during action.

Custody of prisoners of war.

Control of civil circulation.

Surveillance of persons suspected of espionage.

Corps Burial Officer co-ordinates the work of the Divisional Burial Officers, and is responsible for the general supervision of burials and cemeteries in the Corps area.

Deputy Assistant Director of Roads is responsible for the construction and maintenance of roads outside the forward area; for this purpose he is in close liaison with the Labour Commandant at all times.

The Camp Commandant commands all details at Corps Headquarters, and is the administrative officer for Corps Troops, In the latter capacity he is responsible for the housing, rationing. clothing, messing, moves and leave of all ranks. He is also responsible for the records of all ranks and deals direct with 3rd Echelon, G.H.Q., on all matters pertaining thereto.

The Labour Commandant administers and commands, under G.O.C. Corps, all Labour (with certain exceptions) in the Canadian Corps area, inclusive of the Canadian Works Group.

His staff consists of an Assistant, an Adjutant and the necessary clerical personnel.

The Labour Commandant is responsible that all Labour in the Corps area is located and distributed in such a manner that the many and varied requirements are met and carried out in a prompt and efficient manner, and with the least possible waste of man power.

This is done by keeping in touch with the various Branches of the Staff and the representatives of all Administrative Services and Departments employing Labour, by constant personal inspections of the Labour Units in camp and at work, and by various reports, returns, etc.

The Canadian Light Railway Officer (C.L.R.O.) acts as a liaison officer between Canadian Corps and the Army Assistant Director of Light Railways (A.D.L.R.).

Generally, his functions are to assist in the development of Light Railways, having special regard to the particular requirements of the Corps.

Light Railways in the Corps are divided into-

- 1. Army Light Railways, which are operated by steam motive power in the rear area, and
- 2. Canadian Corps Tramways, which are operated by petrol engines and operate in the forward area.

All suggestions for the construction of new lines or sidings on Light Railways in the Canadian Corps area (rear), and which are considered to be in the interests of the Corps, are investigated by the C.L.R.O. and submitted by him to the A.D.L.R. for approval before work is commenced on same.

All trucks required by Artillery Brigades, Ammunition Parks, R.E. Material Parks, etc., for removal of ammunition and R.E. material from Broad Gauge Railheads to Divisional or Brigade Dumps; also for clearing of rations and any other material for use of Corps, and trucks required for transportation of troops from one point to another in the Corps area, are looked after by the C.L.R.O. Formations requiring such trucks send in the night previous to the C.L.R.O. particulars of number of trucks required and times and places where they are required. The C.L.R.O. makes all arrangements with Army Light Railways (Central Wagon Control) for these to be placed as required.

Should there not be sufficient trucks available to meet the demand, the C.L.R.O. takes up with "Q" Branch the question of priority of material and duly notifies formations whose requirements cannot be met, in order that other arrangements may be made for transport.

The C.L.R.O. in Canadian Corps also holds the position of Field Engineer i/c Tramways, and in this respect he is directly responsible to the Chief Engineer, Canadian Corps. All construction in the forward area on Canadian Corps Tramways is referred to the Chief Engineer.

The Canadian Army Gymnastic Staff send over to France and attach to the Corps a number of Instructors. These are distributed round the Schools, Units, etc., for instructional work in Physical and Bayonet Training, and are all under the supervision of an officer who is attached to the General Staff at Corps Headquarters.

An Assistant Director of Educational Services, with assistants in each Division, has been allowed in the Establishment of the Canadian Corps. Since the Armistice, the importance of his appointment has developed enormously, and when it is realised that nearly 75,000 men of the Corps attend his classes daily the importance of his work will be appreciated.

The Corps Salvage Officer commands the Corps Troops Salvage Company and is responsible for the collection of salvage in the Corps area, and for the sorting, listing, and disposal of salvage supplied by the Divisional Salvage Companies. Usually wagons are detailed by the Reserve Park to clear back areas of salvage and often lorries are detailed from the Senior Mechanical Transport Officer. Divisional Salvage Officers are also on the establishment.

The Corps Laundry Officer makes arrangements to wash soiled garments collected from the Divisional and Corps bath houses, and to supply clean clothing to the bath houses. He usually organises area laundries for this purpose, but often has to arrange to farm out the washing to civilians.

The Canteen Officers at Corps and Divisional Headquarters arrange Corps Troops and Divisional Canteens in their respective areas. They arrange with the Senior Mechanical Transport Officer to draw their supplies at wholesale prices from the Army Expeditionary Force Canteen Distributing Centre.

The Claims Officers investigate all claims from inhabitants on behalf of "Q" Branch. Some of these are—

Damage to crops, fields, or pasture land.
Damage to buildings, etc.
Personal injuries.
Occupation of buildings.
Damage to civilian vehicles.

If a claim is legitimate and does not exceed a certain sum of money, and, of course, providing no individual is to blame, the Claims Officer is empowered to adjust the claim on the spot If, however, there is any doubt as to the responsibility, or if the amount exceeds the sum referred to, all available evidence, for and against, must be submitted to the "Claims Commission" for instructions or advice. Wilful damage, if the guilty individual or Unit can be located, must be paid for by the party causing the damage.

So far all the duties have been quoted as undertaken by the Corps Staff. The branches and allotment of duties is similar in the Divisional Staffs, the Artillery, Engineer and Machine Gun Staffs, down to Brigades of Infantry and Engineers, and to Divisional Artillery and Corps Heavy Artillery Head-quarters in the Artillery, except that as the numbers to be administered decrease so the Staffs decrease, until in the cases quoted, the Brigade Majors do the "G" work and the Staff Captain "I" the Intelligence, and the Staff Captains the "A" and "Q," forwarding their work to be co-ordinated and their problems to be solved by the Staff of the higher formation, if necessary.

PART III.—FUNCTIONS. THE INFANTRY.

The Infantry, which it will doubtless be observed is placed first of all the Branches of the Service, is the arm around which the Canadian Corps is built. It is the Infantry, with the assistance and co-operation of the auxiliary arms of the Services, the Departments, and the Staffs, which finally fulfils the ultimate duty of the Corps, viz., which fights the battle, takes the position and holds it when taken.

The principal function of the Infantry is, therefore, to fight and it is organised and administered with this object in view.

The actual fighting will be officially described in the history which is being written, and it is proposed to deal here with the functions of the organisation.

The Unit of Infantry is the Battalion, and the Battalion is divided into a Headquarters and four Companies of four Platoons each. These again are divided into four sections, each with its own Commander.

A section normally consists of from six to ten men, being considered the largest number of men which one individual can control in person, and is the fighting Unit, four of which are controlled and directed by a Platoon Commander.

A Platoon is the largest Unit which it is considered one man can personally direct in battle, and is the fighting Unit on which a co-ordination of battle plans is based.

Four Platoons are, again, in one Company for direction and administration, and four Companies constitute a Battalion.

Each Commander, therefore, has his own regular duties which are co-ordinated, and assisted by certain permanent appointments and other duty officers detailed from time to time.

Duties of a Section Commander.—To look after his section at all times, in billets, in the trenches, and on the march. To know the characters of his men, their names, and their respective abilities and limitations. He should be able to identify any man by his movements and the sound of his voice. He is responsible for looking after the distribution of food, water, and fuel within his section, and for the care which men take of their clothing, equipment, and necessaries. He is responsible for the manner in which his men turn out on parade and for the cleanliness of their billets. He must understand the

Platoon roster of duties and be acquainted with the allotment of tasks. He must know how and see to the carrying out of orders from his superiors regarding work, sentry duty, or tactical deployment. He must have his section ready to follow him and should be ready to lead them wherever the situation demands.

Duties of a Platoon Commander.—He commands his sections, and therefore must know thoroughly all the duties and difficulties of the Section Commanders. He must inculcate discipline and *esprit de corps* in his Platoon, and train his Section Commanders and their understudies in their duties. He is responsible for knowing and promulgating all orders, including defence schemes and plans for attack.

He must keep a Platoon Roll Book, with all particulars of his men, including previous occupation, and their next of kin. He must study the fitting of his men's boots, care of their clothing, and the state of their feet. He inspects his Platoon daily, being responsible for their appearance and for the efficiency of their arms.

He must be able to and must train his men in the use of the weapons with which they are armed, and must train them so that he can deploy his sections readily to cope with any situation. He must direct his sections in battle and be ready to lead his men in any situation necessary.

He must ensure a proper roster of duties within the Platoon.

Platoon Sergeant.—He understudies and assists the Platoon Commander in every way. He is responsible that all other ranks within his Platoon are prompt and punctual at reveille, stand-to, and parades. He must keep a Platoon roster.

Duties of Officer Commanding a Company.—He is primarily responsible for the interior management of his Company and for their clean and soldierly appearance, for their discipline and general well-being. He is responsible for the training of his officers and his men. He must know the characteristics of his subordinate leaders, and is responsible that his subordinate commanders know the exact state of their commands at all times. He must develop understudies for every position of command in his Company, and while being the greatest influence in his Company, he must know that at no time is his Company or any part of it a one-man show. He must develop esprit de corps in his Company, encourage games, create amusements for his men, and make them know that they are well looked after,

and that they will always get a fair show. He must write, or see that his officers write, to the relatives of all officers and other ranks killed, seriously wounded, or missing in his Company. He is responsible for the proper conduct of his officers. He is personally responsible for all Company funds. He must see that rations and clothing are equitably distributed. He must co-ordinate the actions of his Platoons in battle.

For the above purposes he has besides his Platoon Commanders a Second-in-Command, who understudies him in everything, and whose special function is the comfort of the men, their billeting, clothing, cooking, and rationing. He must know each Platoon thoroughly, so that as occasion demands he can train any Platoon or lead any Platoon in battle.

The Company also has a Company Sergeant-Major, Company Quartermaster-Sergeant, Company Clerk, Cooks and Runners

The Company Sergeant-Major is responsible for the smartness and general appearance of the non-commissioned officers of the Company. He must possess a perfect knowledge of drill, and must be able to train the other N.C.O's in their use of weapons, and particularly their administrative duties. He details all Company duties, and must keep proper rosters for same. He attends all Company parades and Company orderly room. He is responsible for the custody and disposition of Company stores and trench stores. He must be capable of taking over the duties of the Platoon Commander in action. He must understand all orders, administrative or battle, so that he can explain them if necessary to N.C.O's, or consider the ideas of his N.C.O's.

The Company Quartermaster-Sergeant takes over the rations in bulk from the Quartermaster, and issues them to Platoons or Detachments as required, in or out of the Line, reporting to the Officer Commanding Company. He keeps a clothing roster, ascertains the wants of the Company, and makes his requisitions for clothing, equipment, and necessaries to the Quartermaster. He personally distributes clothing and equipment. He arranges under the Quartermaster any new billeting of the Company, and is responsible, under the Second in Command, for the men's comfort, and for meals when they return from the line or from action.

The Company Clerk makes out all routine returns, and keeps the full nominal roll for the Company Commander. He prepares the rosters for the Sergeant-Major. He prepares parade states and strength returns. He does not go into action, as he is responsible for Company records when the Battalion is in the line.

For further supervision, the Company Commander details, when out of the line, a Company Orderly Officer, whose duty it is to inspect all meals and billets daily, and to receive any complaints of the men.

The Company Sergeant-Major details for either four or seven-day periods a Company Orderly Sergeant and Company Orderly Corporal.

BATTALION HEADQUARTERS.

While the Battalion Commander is responsible for everything, he has two administrative officers, dividing routine administration between them, namely, the Adjutant and the Quartermaster, who in turn have various specialists directly under them. The Adjutant is at once the Office Manager and mouthpiece of the Commanding Officer, transmitting orders, messages, and information to other officers and other ranks. The Adjutant is responsible for dress, drill discipline and smartness. He must at all times comport himself in such a way as to be an example. His office is called an Orderly Room. and he has an Orderly Room Staff, consisting of Orderly Room Sergeant and Clerks, to whom he allocates the office work of the Battalion, and is responsible for the correctness of everything which emanates from the Orderly Room. He keeps a record of all officers, with full particulars of them and their services. Also a Non-Commissioned Officers' Seniority Roster, with dates of all promotions, etc. He has kept a record of the personal services of everyone passing through the Battalion. He is responsible for the correctness and punctuality of all returns from Companies for the information of the Commanding Officer, and compilation of Battalion Returns to higher Formations. These returns are quite multitudinous, relating to strength, equipment, situations, etc. He must be firm and tactful in his dealings with Officers Commanding Companies, who are generally his seniors. He is responsible for reporting all irregularities and departures from what should be expected, to the Commanding Officer. He is responsible for the issuing and service of all Battalion Standing Orders and Battalion Routine Orders. He is responsible for the filing and promulgation, when necessary, of all orders and regulations emanating from higher authority. He keeps a Duty Roster for officers, and a Leave Roster for officers and other ranks. He prepares all cases to be heard at the Battalion daily Orderly Room, and where the accused are remanded for Court Martial he has taken summaries and usually acts as prosecutor, and as such is responsible that the case is presented fairly and not unjustly.

He is allowed an Assistant-Adjutant, who, when available, understudies him, usually taking over the office routine, while the Adjutant devotes more time to drill, smartness, and appearance of the Battalion. While the Adjutant is responsible generally for the main Headquarters Details, he is usually relieved of this by the appointment of one of the other officers attached to Headquarters, as Officer Commanding Headquarters Company, for rations and discipline. The duties of officers so appointed correspond materially to the duties of any other Company Commander in addition to his special duties whatever they may be.

The Signal Officer has under him a Signalling Sergeant, and a staff of 53 trained Signallers, for the training and efficiency of whom he is responsible. In more stationary warfare he usually allots four operators to each Company, being responsible with the remainder of the Staff for the maintenance of communication from Headquarters forward. Rear Formations take over the responsibility for maintenance of communication up to his Headquarters. In other phases of warfare he details Signallers as the situation demands. He must be thoroughly acquainted with all systems of signalling in use, and where possible take over the signalling system before the Battalion goes into the line or to action. It is his duty by day or night to maintain communication by the most expeditious method possible, be it telephone, visual, wireless, or runners.

A variable number of Battalion runners also come under the Signalling Officer.

He is responsible that all equipment is complete and serviceable, including bicycles.

Intelli nce Department. An Intelligence Officer is responsible for tactical information, for collating same, and keeping his Commanding Officer informed of all changes or movements. He has a Staff of Scouts, Sentries, and Observers, for whose training he is responsible. He has charge of all maps, and is responsible for any corrections, up-to-date, and

for the supply to the proper parties of properly corrected maps. In stationary warfare he maintains observation of the enemy, and must know thoroughly enemy landmarks in the enemy area, the positions they hold, their habits, observing their shelling and general activity, keeping close liaison with the Intelligence Officers of senior formations, reporting his observations to them, likewise recording observations received from them. In more open warfare he is responsible for the (1) collection of data regarding the area he is in; (2) observation of our own progress, and movement or activity of the enemy. In reporting on our own progress he must know the positions of our advanced troops, and keep the flanks of the Battalion in touch with adjoining Units. (3) At all times he is responsible for routes of march, or guiding parties to strange destinations, such as assembly, positions, etc. He keeps close liaison with the Artillery. He is responsible for collation of daily intelligence records. He is assisted by a Scout Officer, who, when possible, understudies him, and generally conducts personally advanced reconnaissance patrols of "No Man's Land," enemy wire, and enemy positions.

Lewis Gun Officer.—In each Platoon there are two Lewis guns, the gunners for whom are of course under their own officers for training and all other matters, but the Lewis Gun Officer is responsible for their constant technical training, and assists Company Officers when necessary. He is assisted by a Lewis Gun Sergeant. He trains special classes of Lewis gunners whenever possible. He advises on the tactical handling and disposition of guns. He arranges for practice, and arranges and supervises fire on the ranges whenever the Battalion is out of the line. He is responsible for the maintenance of the guns in good order, and for the supply of spare parts. In action he usually acts as Liaison Officer with adjoining Units, or in conjunction with the Intelligence Officer.

Bombing Officer and Works Officer.—When possible an officer is appointed as Bombing Officer, who also acts as Works Officer. He is responsible for the supply of bombs, flares, ammunition, etc., the construction of bombing pits when out of the line, and the training of all men in the use of bombs. He supervises any purely Battalion work in the trenches and out of the line, and keeps up liaison with the Engineers.

Regimental Sergeant-Major.—He must be an example to all Warrant Officers and all non-commissioned officers in the Battalion in all things, and at all times be able to coach and instruct them in any of their duties. He acts as a connecting link between the Adjutant and the non-commissioned officers of the Battalion. He must study critically all N.C.O's under him, and be able to report upon their character or efficiency to the Battalion Commander, and he must bring to notice any breach of duty. He gives out the detail of the Battalion duties, and parades guards, picquets, and Battalion duties. He attends Battalion Commanders' Orderly Room, and is responsible for the presence and parading of other ranks accused, and witnesses, or for interviews. He supervises the work of the Regimental Police.

Provost Sergeant.—The Provost Sergeant has a staff of Regimental Police, with whom he sees to the carrying out of Field Punishment in the proper manner, except that when in custody the field punishment men are under the Sergeant of the Guard. He finds police for guarding any special stores or places of public resort put out of bounds. He acts as escort for prisoners who have to travel. In action he finds, with his policemen, battle stops and control posts, *i.e.*, men who see that no one leaves the action without cause. He usually supervises the turning over of the prisoners of war to Brigade prisoners of war cages.

Pioneer Sergeant.—The Pioneer Sergeant has a staff of Pioneers whom he uses to further the comfort of officers and men by improving billets, beds, latrines, or any other minor repairs necessary in the Battalion. He has under him a Sanitary Corporal, who sees daily to the care of latrines and refuse. He finds burial parties, and makes crosses for those killed in action. In stationary warfare he is usually in charge of dug-out material, and with his staff works on the final improvements of dug-outs and latrines. In open warfare he generally attends to stretcher bearer work and salvage parties.

The Orderly Room Clerk or Sergeant is in charge of the regularity of the Orderly Room in general seeing that the Adjutant's orders are carried out. He prepares all Returns for signature. He is responsible for the punctual despatch of all correspondence and for the record of all letters and telegrams. He is responsible for indenting in time for all Orderly Room supplies, paper, etc., and for the issue of all stationery to Companies. He is responsible for the discipline of the Orderly Room Staff, and for disposition of work.

Gas.—The Battalion Gas Sergeant is responsible for the maintenance of efficient Gas respirators throughout the Battalion, for the constant testing of same, and for the instructions in the proper manner that they should be used. He is responsible, when possible, for the making of dug-outs gas proof. He promulgates to all ranks the nature of gases, the way in which they are propelled, and the means of detecting same, also the first aid necessary in the event of gas poisoning. He is responsible immediately after a gas attack that the proper steps are taken to dispel the gas from the area. He is responsible for the supply of anti-gas appliances, and for their distribution, viz.: such things as strombos horns, gongs, fans, etc. He keeps careful note of any occurrences relating to gas, advising when "Gas Alert" is necessary, and making full reports on any gas situation. For these purposes he has under him Company Gas N.C.O's, one of whom is attached to each Company.

Battalion Orderly Officer and Orderly N.C.O's simply carry out similar duties to those described with Companies, only on the broader basis of the Battalion.

The Quartermaster.—The Quartermaster is responsible for the provision of correct rations, of food, forage, fuel, arms, clothing, boots, equipment and necessaries, and all articles of ordnance stores. He keeps in close touch with the D.A.D.O.S., and with the Brigade Supply Officer. He is responsible for the proper distribution to companies and other attachments of the rations, fuel, etc., and is primarily responsible for the accuracy of ration indents. He is responsible for the inspection and disposition of kits of Officers and men killed in action and missing. He is responsible for the billeting of the Battalion, generally preceding the Battalion to a new area, to arrange same, and always settling billeting claims. He keeps his own records and files of orders relating to his department, receipts, duplicate indents, etc. He must keep in close liaison with the Adjutant, so that his work harmonises with operations. He sees to the issue of all special stores and equipment for action. Battalion is in action he must get in touch with the requirements of rations water and other supplies and see that they are delivered. He is responsible for the care of all Battalion stores, and that no excess baggage is carried which would make the Battalion immobile.

He has under his immediate command a Regimental Quartermaster-Sergeant. The Regimental Quartermaster-Sergeant understudies the Battalion Quartermaster and attends to all issues of stores, and superintends parties receiving or collecting stores or equipment. He supervises the work of the Company Quarter-master-Sergeants when with the Quartermaster's Department. He is responsible for the discipline and smartness of the Quartermaster's Department, and anybody attached to it. He has a staff of a butcher and orderlies to attend to the issuing of stores.

Being responsible for the issuance of clothing and boots, he has under him shoemakers and tailors. The Sergeant Shoemaker must continually make an inspection of the men's boots, seeing that they are kept in good repair, and that they fit properly, and issue new ones when necessary.

The Master Tailor sees to the re-fitting of all uniforms; he fixes identification patches on all jackets, and so long as clothing can be kept serviceable he sees to repairs.

A Sergeant Cook has in each Company a Staff of four cooks, who are directly under their Company Commander, but who are advised daily by the Sergeant Cook as to the best use to be made of rations available. The Sergeant Cook is also responsible for the efficiency of all cook wagons.

A Postal N.C.O. receives all incoming mail, delivering to Company Quartermaster-Sergeants mail for all ranks with the Battalion, and readdresses the mail for all casualties.

Transport.—The Transport Officer is responsible for the discipline and interior economy of his command. He is responsible for the condition of all animals and vehicles, which he must thoroughly understand. He sees that his horses and mules are properly groomed, watered, and fed, paying most careful attention to the shoeing, and sees that all sickness, accidents, etc., are promptly and properly attended to. He is responsible for the drill and smartness, mounted and dismounted, of his Unit, and for the horsemanship and driving abilities of his personnel. He must see that his harness and saddles are always kept in perfect condition and repair; that his vehicles are always in good repair, well oiled and greased, and that full equipment is carried. As the Transport is largely a mirror of the Battalion, so he must inculcate in his personnel a feeling of pride and esprit de corps which will keep his wagons and horses showing to the best advantage, and instilling pride in the whole Battalion. He keeps a duty roster book, both as regards men and animals, and a careful record of all his equipment. In action he is responsible for the transportation of rations, water, ammunition, etc., to his Battalion. He must find routes and the most suitable place to dump his loads. He must have a thorough knowledge of map reading, and be able to go to any place at any time, under all conditions, day or night, and deliver his loads. His duty is to get there, but he must not foolishly sacrifice his animals, personnel or loads, as none of them can be quickly replaced. Out of the Line, on the march he is responsible for the transportation of all regulation baggage, and sees that no wagons are unduly loaded, and that proper march discipline is maintained by his drivers. Daily he draws and delivers rations, fuel, ordnance stores, water and other transportation as required within the Battalion.

He has a Transport Sergeant who understudies him in every respect.

The Second in Command understudies the Commanding Officer, assisting and supporting the Commanding Officer in every respect. He assists the younger officers in their duties, giving them advice whenever necessary. He has charge of regimental accounts, and supervises the running of the regimental canteens. He supervises the work of the Quartermaster and the Transport Officer, being mainly responsible for everything pertaining to the men's comfort and welfare, both in the billets and trenches. He makes arrangements for baths, and sees to the improvement of the billets and area. He supervises the cooking arrangements of the Battalion, and he purchases extra supplies to add to the rations of the men. He supervises all workshops of the Battalion, such as tailor, shoemaker and pioneers. He assists the Battalion Commander in the training when necessary.

The Commanding Officer.—Although the Commanding Officer is responsible for everybody and everything in the Battalion, he is primarily responsible for the training, for the fighting efficiency of his Unit, and for the discipline. It is his duty to develop an *esprit de corps* and pride in the men in themselves, and in their regiment, letting all ranks know of past achievements of the Battalion, and inculcating a desire to do even better. He holds Office daily for the disposal of offences, and for interviewing any other ranks who wish to see him.

He must know his officers thoroughly, their habits, their character, their ability, in order that the responsibilities are given to men capable of carrying them, and while being just must never hesitate to condemn where necessary, telling his subordinates of their faults and what is required of them. At the same time he

must not fail to let them know when they do good work, and he must always be ready to hear and consider their views and any grievances. He is responsible for recommending their promotion.

He must continually study his N.C.O's, knowing any particular aptitude of certain of them for various work, or any who warrant accelerated promotion. He must have understudies in his Battalion for every appointment therein.

He supervises all correspondence of the Adjutant and Quartermaster, dealing personally with correspondence for higher authority. He must know everything that goes on within his. Battalion and that affects his Battalion. The Commanding Officer is responsible for the War Diary, and that full and proper records are kept of the Battalion. He is responsible that all accounts are audited regularly. He must constantly study the tactical handling of weapons and men.

THE MACHINE GUN UNITS. HEADQUARTERS CANADIAN MACHINE GUN CORPS.

The G.O.C. Canadian Machine Gun Corps is the technical adviser to the Corps Commander on the tactical employment, training, allocation of Machine Gun Units and policy of Machine Gunnery in the Canadian Corps.

He watches on behalf of the Corps Commander the special interests of the Machine Gun Corps personnel as regards promotion and appointments.

He supervises the tasks of Machine Gun Units and coordinates the plans of Divisions for the action of Machine Guns in operations.

During active operations he exercises executive command over such Units of the Corps as may be placed under his orders by the Corps Commander for this purpose. During the operations of 1918 this Mobile Force was designated "Brutinel's Brigade," and consisted of the 1st and 2nd C.M.M.G. Brigades, Canadian Light Horse, Canadian Corps Cyclist Battalion, T.M. Sections and Field Artillery, additional Units being attached as they were available, and the situation required.

The Staff of the C.M.G.C. consists of—

One Staff Officer, who acts as Brigade Major to the G.O.C.

One Staff Captain, who looks after administration, strength, promotions, transport, etc.

One Staff Officer, who carries out the duties of Reconnaissance and Intelligence Officer.

MACHINE GUN BATTALIONS.

The Battalion is the Unit for purposes of administration and training. The training has been thus centralised to obtain uniformity in tactics and greater efficiency in technical training.

There is no similarity between Infantry Battalions and Machine Gun Battalions, either as regards administration or tactics. A Machine Gun Battalion can be more closely compared to a Divisional Artillery both in its organisation and in its tactical distribution.

In principle the Machine Gun Battalions remain with their respective Divisions and participate in all battles, whether defensive or offensive, under the command of the G.O.C. Division.

They come, however, under the orders of the G.O.C., C.M.G.C., when there is more than one Division engaged, and the Machine Gun plans of engagement require co-ordination on the Corps Front.

- (a) Battalion Headquarters.—Owing to the fact that a Canadian Machine Gun Battalion is operated on a Divisional front, the control and administration becomes a difficult matter. For this reason the Battalion Headquarters Staff is divided into three Departments as follows:
 - i. The "G" Orderly Room.
 - ii. The "Q" Orderly Room.
 - iii. The Quartermaster's Department.

Except during active operations these three departments are located together at Battalion Headquarters.

They maintain, however, their separate functions in order that, should the Battalion be ordered into action at short notice, the machinery of the Battalion will continue without interruption.

The following are the duties of each Department:—

(1) G.O.R.—The Staff consists of the Adjutant, Signalling Officer, Clerks, Draughtsmen and Orderlies. It always accompanies the Commanding Officer, and during active operations is located at or near Divisional Headquarters. It controls the Battalion and is responsible for issuing of all orders, including operations, administration, training and discipline. It is also responsible for co-ordinating the Signal Communications within the Battalion,

(2) Q.O.R.—The Staff consists of the Assistant Adjutant, Paymaster, Clerks and Orderlies.

During active operations it is usually located with the Machine Gun Companies or Batteries in Divisional Reserve under the orders of the Second in Command of the Battalion, thus forming a Second Echelon. All orders for the Medical Officer and Quartermaster's Department pass through this office.

It is responsible for all the records of the Battalion, including Nominal Rolls, Card System, Registers, Field Conduct Sheets and daily Routine Orders. It prepares all "A" and "Q" Returns ready for the signature of the Officer Commanding. It ensures that all orders issued by the G.O.R. affecting the rear Echelon are promptly carried out.

It is further responsible for the training and discipline of all ranks of the Battalion in its vicinity.

(3) Quartermaster's Department.—The Staff consists of the Quartermaster, Assistant Quartermaster and Clerks.

It is responsible for the correct provision of rations, fuel, forage, arms, clothing and ammunition. When the Battalion is on the move it arranges for all billets and accommodation required. During active operations it receives orders through the Q.O.R.

(b) Battalion Commander.—Under normal conditions the Officer Commanding makes his Headquarters with the Machine Gun Battalion. Too much of his time should not be absorbed by Staff work, and in this connection his subordinates should be used freely for minor reconnaissances, etc. At the same time he must keep in close touch with the tactical situation and should report frequently to the General Staff of the Division.

Arrangements are made by the General Staff for him to have access to all tactical papers of instructional value, together with orders, instructions and correspondence which either directly or indirectly affect Machine Guns.

The services of the Officer Commanding are available as required by the Administrative Staff in dealing with all matters affecting personnel, establishments, and equipment of Machine Gun Units.

During active operations the Officer Commanding, with a suitable proportion of his Headquarters Staff, must be located at the Headquarters of the Division.

The principal duties of the Officer Commanding are :-

- (1) To administer and command the Machine Gun Battalion.
- (2) To direct the tactical action of the Machine Gun Batteries under his command, in accordance with the orders of the G.O.C. Division, and in close co-operation with the other arms.
- (3) To be responsible for arranging and carrying out reliefs of Machine Gun Batteries, and for the maintenance of strength, both in personnel and material, of the Machine Gun Batteries in the line.
- (4) To advise the Divisional Commander regarding the distribution and employment of the Machine Gun resources of the Division in relation to the tactical situation.
- (5) To prepare for the approval of the G.O.C., the plan of operations for the Machine Guns of the Division, both in Offence and Defence, and to co-ordinate the plans with those of the Divisions on either flank.
- (6) To be responsible for keeping Infantry Brigades in the Line informed as to the disposition of the Machine Guns covering their respective sectors, and to ensure that close and constant liaison is maintained between Infantry and Machine Gun Units.
- (7) To supervise on behalf of the G.O.C. the carrying out of the instructions regarding Machine Gun Units both in Offence and Defence, and to ensure continuity and method in the siting and construction of Machine Gun Emplacements in the Divisional Area.
- (c) **Company Commander.**—The Company has no administrative functions. It is a convenient echelon for the co-ordination of the Machine Gun Batteries, the supervision of their tactical handling, and the maintenance of good liaison with the Infantry.

The principal duties of the Company Commander are :—

- (1) During active operations he establishes his Headquarters at the Headquarters of the Infantry Brigade whose section his Batteries are covering.
- (2) He supervises the work of the batteries in the line and ascertains personally that close liaison is maintained with the Infantry and Artillery. He visits all Infantry sectors covered by his guns and ensures that Battery Commanders are conversant and in close touch with the situation on their own and neighbouring fronts.

- (3) He must be thoroughly acquainted with Canadian Corps "Trench Standing Orders" and "Trench Standing Orders for Machine Guns" issued by Armies, and will ensure that they are conscientiously carried out by the Batteries under his command.
- (4) He controls and supervises the tactical handling and training of his Batteries, with as little interference as possible with the Battery Commanders, leaving to the latter the fullest measure of initiative.
- (5) He is responsible to the Officer Commanding for the interior management of his Company and for the discipline, cleanliness, and soldierly appearance of all ranks.
- (6) He must know the capabilities of all ranks under him, and be in a position to suggest suitable officers for promotion.
- (7) He ensures that the Company Officer's Mess is properly conducted and accounts paid promptly.
- (8) He is responsible that all reports and returns required by Battalion Headquarters are rendered promptly and correctly.
- (9) He ensures that the kits of all deceased officers and men are promptly despatched to Battalion Headquarters.
- (10) He encourages and promotes games, sports, and amusements.
- (11) He brings to the notice of the Officer Commanding any irregularities with which he has not sufficient power to deal with himself.
- (d) Battery Commander.—The Battery is essentially the tactical Unit, and is the smallest Unit detailed for attachment to Infantry Brigades or Battalions. It is self-contained as regards command, transport, and personnel except Signallers, who are with the Company Headquarters and are distributed as the situation demands.

The principal duties of the Battery Commander are:

- (1) During active operations he will establish his Headquarters at the Headquarters of the Infantry Battalion whose sector his guns are covering.
- (2) He supervises the work of his sections in the Line and ascertains that close liaison is maintained with the Infantry and Artillery. He visits all Infantry sectors covered by his guns and ensures that section Commanders are conversant and in close touch with the situation on their own and neighbouring fronts.

- (3) He must be thoroughly acquainted with "Canadian Corps Trench Standing Orders" and "Trench Standing Orders for Machine Guns" issued by Armies, and will ensure that they are conscientiously carried out by the sections under his command.
- (4) He controls and supervises the tactical handling and training of his sections.
- (5) He is responsible to his Company Commander for the efficiency, discipline, administration, equipment, and training of his Battery.
- (6) He is responsible that his Battery transport is in good condition and always ready for immediate action.
- (7) He promulgates all orders to his officers, N.C.O's and men.
- (8) He must know the capabilities of all ranks under him, and be in a position to advise his Company Commander regarding promotions.
- (9) He ensures that the kits of all deceased officers and men are promptly despatched to Company Headquarters.
- (10) He encourages and promotes games, sports, and amusements.
- (11) He ensures that all reports and returns required by Battalion and Company Headquarters are rendered promptly and correctly.
 - (12) He supervises the Battery roster of duties.
- (13) He is responsible for the clothing, fuel, rations, and ammunition for his Battery.
 - (e) Section Commander.—His principal duties are:
- (1) He is responsible to his Battery Commander for the efficiency, discipline, and administration of his section.
- (2) Being the officer in closest contact with the men, he must acquaint himself with their characters, previous employment, good points, and limitations. He should know every man in his section personally and be able to recognise them by voice.
- (3) He must have in his possession at all times a full nominal roll of his section, showing full names, number, date of birth, age, and address of next of kin of every man. He will ensure that every N.C.O. has a similar roll of the men under their Command.

- (4) He inspects his men on all parades and at "Stand to" during action.
- (5) He must be acquainted with all "Trench Standing Orders," and insist on them being carried out.
- (6) He supervises the cleaning of his section guns and inspects the fighting equipment regularly.
- (7) When in action he establishes liaison with the Infantry Units in his vicinity and those over whom he is ordered to fire.
- (8) He inspects the billets of his men regularly and looks after their comfort, including food, water, clothing, arms and equipment. He encourages sports and everything likely to improve their morale.
- (9) He ensures that his section carry out their duties conscientiously both in and out of the line, and promulgates all orders affecting them.
- (10) He ensures that the kits of all deceased N.C.O's and men are promptly despatched to Battery Headquarters.

CANADIAN MOTOR MACHINE GUN BRIGADE.

These Brigades are Corps Troops, and as a general rule are held in Corps Reserve ready to support at short notice any part of the front which may be threatened. Owing to their mobility they can be quickly moved from one part of the front to another.

As previously explained in para. I., these Units are also employed with Brutinel's Brigade, being utilised to advance in front of the Infantry, seizing tactical positions and breaking up the defence of the enemy.

- (a) Brigade Headquarters.—Owing to the mobility of a Motor Machine Gun Brigade and the fact that they are liable to move at short notice to operate on a wide front, their Headquarters are organised on the same lines as a Battalion of the Canadian Machine Gun Corps, being divided into the same three departments. (See para. 2 (a).)
- (b) **Brigade Commander.**—The duties of this officer are similar to those of a Battalion Commander with the exception that he locates his Headquarters with the formation he is operating under, and maintains liaison with all the Machine Gun and other Units in his area.

- (c) Battery Commander.—The duties of this Officer are similar to those of a Machine Gun Battalion Battery Commander, with the exception of having motor transport in place of horsed transport. (See para. 2 (d).
- (d) **Section Commander.**—Duties similar to those of a Machine Gun Battalion Section Officer. (See para. 2 (e).

CANADIAN MOTOR MACHINE GUN M.T. COMPANY.

This Company is the Unit which supplies the Motor Machine Gun Brigades with their mechanical transport. It is divided into a Headquarters and two Sections. One Section is attached to each Brigade and comes under their tactical control.

The M.T. Company is self-contained, having its own workshops and repair sections. It is responsible for keeping the vehicles in good running order and ready for immediate action.

It is a C.A.S.C. Unit, and is administered by the S.M.T.O. Canadian Corps Headquarters.

LIGHT TRENCH MORTAR BATTERY.

The main function of a Light Trench Mortar Battery is the employment of a light and readily mobile weapon for dealing with enemy works or activity which by nature of the ground it is difficult for Artillery to cope with, or from proximity to our own lines dangerous for other weapons to deal with.

The weapon employed, the 3-in. Stokes Gun, is sufficiently mobile to be moved from point to point very quickly to engage targets immediately they are seen. Its range is only 700 yards.

A Battery has for its administration a Battery Commander and four Subalterns, and sufficient personnel to allow five gunners to each Mortar. The entire personnel is detached from Infantry Battalions within the Brigade. This personnel being inadequate when the Mortars are actively engaged, sufficient further personnel is usually temporarily attached from the Infantry Battalions of the Brigade concerned.

Each Gun Crew has its leader who, is responsible for the care of the weapon. He must know the faults and errors of his gun thoroughly, and when shooting be able to observe and correct his fire where necessary. He must keep thoroughly clean any ammunition allotted for use of his gun, and personally supervise the fusing of all ammunition. He must know the qualities of each man in his crew, and continually instruct his crew in the use of the weapon and the care of the ammunition.

The four subalterns normally have command of a Section of two guns each. In Trench Warfare, however, where Light Trench Mortars have been of the greatest use, as the Mortars are generally widely scattered over the Brigade Front, it is necessary to conduct reliefs of the officers, giving them charge of a varied number of guns according to the grouping; and out of the line, as there are no specialists, the varied work of the Unit must be done by Roster, which the Battery Commander keeps.

Each subaltern must have a very thorough knowledge of map reading, ranges and compass work, as when fighting it is his duty to pick up his own targets, to know the enemy trench system thoroughly, and by cross bearings absolutely locate any targets. He must be able to train also his men in every detail of the Mortar, the ammunition, and means of locating targets.

The Battery Commander must personally supervise all the routine and administration in his Battery. He usually employs a senior N.C.O. as Battery Sergeant-Major, and this N.C.O. must be, as other Sergeant-Majors, responsible for discipline, smartness, and general conduct of the men, setting a perfect example to them. He must know the use of the gun thoroughly and be capable of instructing his N.C.O's in their duties, and the men in every respect. In action he is usually responsible for the supply of ammunition to the gun, to the maintenance of reserve dumps of ammunition, and in Trench warfare to the supplies necessary for gun-pits.

Another N.C.O. is detailed for duty as Quartermaster-Sergeant, and he draws all supplies from Ordnance, and is responsible for the delivery of rations and clothing in and out of the Line. He takes Mortars and parts to the Inspector of Ordnance Machinery for repairs, and indents upon the Ordnance for such new parts as may be necessary.

The Battery Commander receives his orders from Brigade Headquarters, keeping in close touch with them to co-operate with other weapons against any targets which Brigade lays down, and keeps close liaison with Battalions to deal with any activity of the enemy immediately within their sight.

He is responsible for the training of his men in every respect, and for the full employment of his weapon. He must continually select new targets, and select and have improved firing positions. He must always be able to devise means of coping with any enemy annoyance to the Battalions in the lines, and must act

as a pacifist with Battalion officers who dislike Trench Mortars too close to them in the trenches owing to the enemy fire which they draw.

Owing to the small personnel in Trench Mortar Batteries, ammunition is generally carried up by Infantry parties, and again to overcome the resultant dislike of the Infantry, the Battery must prove its usefulness.

Gun-pits, whenever possible, must be thoroughly constructed, so that they can stand hits from enemy artillery and yet carry on. They must be very carefully concealed, and allowance made for the ammunition, which must be kept dry.

In open warfare, guns of the Battery are usually attached to Infantry Battalions under one of the officers to cope with any Machine Gun emplacements, or other fortified places which hold up an advance. This requires quick eye for ground, as unless the gun is fired from a fold in the ground permitting protection from direct fire the crew can be readily knocked out. After positions have been gained, it is the duty of the guns immediately to occupy positions to cover approaches, so that the consolidation of ground gained can be carried out. The Battery Commander in this case acts as Liaison Officer at Brigade, and looks to the supplying of his guns with ammunition.

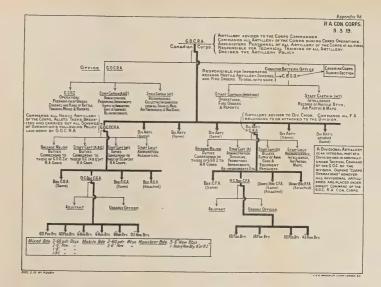
ARTILLERY.

G.O.C., **R.A.**, **Canadian Corps.**—The G.O.C., R.A., acts in the capacity of Artillery adviser to the Corps Commander and directs the Artillery policy with regard to the situation.

During battle conditions all Artillery, field and heavy, with the Canadian Corps is placed under the direct control of the G.O.C., R.A., in order to co-ordinate the artillery effort.

The G.O.C., R.A., is at all times responsible for the administration of all Canadian Artillery Units in France, with the exception of the Canadian Anti-Aircraft Batteries, which are an army formation.

Brigadier-General, Canadian Corps Heavy Artillery.—The B.G., H.A., is responsible to the G.O.C., R.A., for the tactical control of all Heavy and Siege Batteries with the Canadian Corps. He is responsible for the carrying out of all destructive bombardments opposite the Corps front with the exception of counter battery work. The B.G., H.A., is responsible for the administration of all Canadian Heavy and Siege Batteries.





Counter Battery Staff Officer.—The Counter Battery Staff Officer is the Staff Officer of the G.O.C., R.A., responsible to him for the organisation and execution of all counter battery work of the Corps, in accordance with instructions issued by the G.O.C., R.A. For this purpose the Counter Battery Staff Officer is given a priority call on certain of the Heavy and Siege Batteries supporting the Canadian Corps.

During extensive operations, such as the Battle of Vimy, Hill 70, Passchendaele, etc., all Canadian and Imperial Artillery supporting the Canadian Corps come under the command of the G.O.C., R.A. The extent of the Artillery Command onthese occasions was as follows:—

The amount of ammunition expended by the Artillery in large operations is enormous, and one of the most difficult problems to be solved by the Corps Staff is the provision and accumulation of gun ammunition preparatory to an operation, and its supply to the batteries in the course of an operation.

This will be realised when it is stated that during the Passchendaele Battle alone, lasting 30 days, the Canadian Corps Artillery fired 2,100,000 shells of all kinds. If this amount of ammunition could be loaded on one train, the length of this train would be $17\frac{1}{2}$ miles.

The distribution of the Artillery generally consists of 6-in. and 9.45-in. trench mortars near the front line, throwing 52-lb. and 150-lb. bombs a distance of from 1,200 to 2,400 yards respectively.

An Anti-Aircraft Battery—five sections, 10 guns, 13-pounder, mounted on motor lorries.

Field guns, about 3,000 to 3,500 yards from the front line, for the rolling barrages and S.O.S.

Heavy and siege guns, from 60-pounder to 9.2-in. for harassing fire, demolition, counter battery work and gas shelling at ranges of from 10,000 to 14,000 yards, both delay and instantaneous fuses being used.

Counter Battery Work.—The enemy area is divided into squares. Batteries are located by flash spotters, sound rangers,

aeroplane and ground observation. A crime sheet is prepared for each enemy battery as located, showing its position, activity and general targets.

Destructive and neutralising shoots are directed by aeroplane with wireless or balloon with telephone, or from ground observation. Neutralising is effected by shrapnel or gas shell.

Enemy batteries are located by the intersection of flashes, sound ranging, or by direct observation. On a report of activity, offending batteries can almost immediately be located.

Super-howitzers and guns are often in support of, although not belonging to the Corps. These are 12-in. and 15-in. howitzers firing shells weighing 750 lbs. and 1,400 lbs. respectively, 9-in. guns firing shells weighing 380 lbs. and 6-in. Mark VII guns firing shells weighing 100 lbs. The former are on railway mountings.

Observation Posts and Communications.—O.P.s are the eyes of the Artillery and practically of the Corps. They are manned by an officer and telephonists with wires to Batteries, Brigades, Divisions and Corps Headquarters. Aeroplanes signal by wireless when targets of opportunity are seen.

Divisional Artillery.—The function of the Divisional Artillery is to render direct support to the Infantry of the Division. The Batteries take up positions averaging 3,000 yards behind the line held by the Infantry, and render this support by means of engaging all enemy targets seen by ground observation and by forming protective barrages in the event of the enemy attacking. The support to the Infantry during our own attack is rendered by means of the Batteries taking up suitable positions to form creeping barrages which move forward and have the effect of keeping the enemy down while our Infantry assault.

The Divisional Artillery fires shrapnel and high explosive, and is also provided with gas and smoke shell for special tasks.

Heavy Artillery.—Heavy batteries (60-pounders) are used principally to neutralise hostile batteries and to harass the enemy on roads and lines of approach beyond the range of field artillery.

Siege Artillery.—The Siege Batteries (6-in., 8-in., and 9.2-in.) are used principally in counter battery work, to destroy to the enemy the value of his Artillery, and also for the purpose of bombarding houses, trenches and strong points which contain machine guns or riflemen which might hinder our advance.

Siege Batteries are also used for cutting wire entanglements, for which purpose an instantaneous fuze is used. Shell filled with this fuze has great effect against personnel, and are used on enemy's most likely assembly areas when it is expected he may be massing for an attack.

Anti-Aircraft.—Anti-Aircraft Batteries engage all enemy aircraft which come within range, principally by direct fire, but in special cases these Batteries are organised for the defence of cities and great railway centres, and in such cases during darkness, when searchlights are unable to pick up enemy aircraft, these Batteries form barrages with a view of preventing the enemy from reaching any objective which he may wish to bomb.

Medium Trench Mortar.—The Medium Trench Mortar Batteries (6-in. mortars) are used principally to destroy machine gun emplacements and trenches and wire in the enemy's front systems. They are also very valuable for counter mortar work against the enemy's trench mortars.

Heavy Trench Mortar.—The Heavy Trench Mortar (9.45-in.) are used similarly to the mediums, but owing to the greater weight of shell and range have greater effect.

The Subaltern.—In all natures of Artillery the subaltern normally commands a section (two guns). He is responsible in every way for his command, and in addition assists the Battery Commander in observation and liaison duty. During trench warfare it is necessary at all times for every battery to have a forward observation officer, and as the Battery Commander is responsible for the whole of the fighting of the Battery, it is the custom to have subalterns, in turns, remain on duty in forward observation posts. In each Battery there are supernumerary subalterns to assist. Batteries in action have an officer at the headquarters of the Infantry formation supported, and a subaltern is required to perform this liaison duty.

The Captain.—The Captain of the Battery is second-incommand of the Battery, and in addition is responsible for the supply of ammunition, rations, clothing and equipment, and all duties pertaining to transport.

The Battery Commander.—The Battery Commander is fully responsible for the fighting and administration of the Battery which is the fire Unit. He is responsible for all

mathematical calculations and orders relating to firing. He selects his Battery positions, organises his observation post, communication and liaison with the Infantry, and instructs his Captain in relation to the ammunition supply.

The Brigade Commander.—The Brigade Commander receives a task for his Brigade and is responsible for the allotment of tasks to his Batteries, and for the organisation of the tactical scheme, by which support is given to the Infantry by means of his Batteries.

ENGINEER SERVICES.

The Chief Engineer is the technical adviser of the Corps Commander on all Engineer Services, and administers the Canadian Engineer personnel in France. His staff consists of a Staff Officer, a Staff Captain for "A" and "Q" duties, a Staff Captain for Stores and Transport, and four Field Engineers: one each for defences, water supply, tramways and roads. Assistant Field Engineers may be attached as required in times of stress.

The Engineer Services within the Corps are divided, roughly, into Divisional areas and Corps area. A line of demarcation is settled upon in front of which Divisions are responsible for carrying out the work. In rear of this line extends the Corps area, in which work is carried out by the C.R.E. Corps Troops, or directly under the Chief Engineer.

When the Canadian Corps undertakes an operation involving more than one Division the Engineer Units are pooled and come under the executive control of the Chief Engineer for the operation.

Under the Chief Engineer are defences, roads, tramways, water supply, offensive and defensive mining, tunnelling, bridging, demolition, the supply and manufacture of the necessary engineer stores, and the construction of accommodation for troops and horses.

Defences.—The general policy concerning Defences and their nature and siting is laid down by the General Staff, and the Defences are constructed by or under the supervision of the Engineers, the Officers Commanding Engineer Brigades being responsible in the Divisional areas and the Chief Engineer in the Corps area.

In this manner Defences in depth are ensured.

The Corps Machine Gun Officer selects the machine gun positions and works up a scheme for the "heavy" machine gun

defence of the various trench systems, and when approved by the General Staff, the construction of the machine gun emplacements, dug-outs, tactical wiring, etc., are carried out under the Chief Engineer.

Under the category of Defences is included wiring, construction of trenches, deep dug-outs, gun and machine gun emplacements, offensive and defensive mining, Infantry subways, preparation of roads, bridges, machinery, etc., etc., for demolition, construction of Infantry and mule tracks, roads, deep dug-out or protected accommodation for Regimental Aid Posts, Advanced Dressing Stations, Battalion, Brigade and Divisional Headquarters, and the camouflage of this work to protect it from ground or aerial observation.

The Artillery are particularly affected by the provision of the following:—Tramways and roads to enable the guns to be got into position, and to ensure their ammunition supply; materials for and the placing of camouflage; materials for and the construction of gun emplacements, ammunition recesses and dug-outs for the protection of guns, ammunition and personnel from hostile fire.

Housing, Water, Roads, etc.—An important duty is the construction of the necessary facilities for the existence of what is practically a "moving city," with a population varying from 105,000 to 160,000 men and from 25,000 to 60,000 horses, the whole or part of which moves on short notice. This involves the provision and erection of the necessary hutting for Headquarters. officers and men, and, in winter, standings and shelters for horses; the necessary sanitary arrangements, such as ablution tables, latrines. and the construction of bath houses, laundries, disinfectors, incinerators, etc.; the provision of water for man and beast, and the hundred and one things which are necessary for the maintenance of this population in the Field. Arrangements have also to be made for the reception of the necessary supplies, rations and forage, ammunition, etc., provided by "Q" Branch. This involves arrangements for railway sidings, "in "and" out" roads to them, and the development and maintenance of welldefined traffic routes, to enable the heavy traffic to move without interruption. Supplies and ammunition, under "Q" arrangements, are cleared to dumps and refilling points, from which they are distributed, and at these dumps and refilling points facilities have to be provided for means of access and footings, cover from weather and protection from bombs and shell-fire.

Arrangements made by the Medical Services for the handling of sick and wounded involve provision of roads or tramways for their evacuation, and the construction of Regimental Aid Posts, Advanced Dressing Stations, Main Dressing Stations, and Casualty Clearing Stations.

Engineer Purposes, etc.—The purpose of the Engineers is to apply engineering science to the emergencies of modern warfare, in order to protect and assist troops; to ameliorate the conditions under which they are serving, and to facilitate locomotion and communication.

In addition to the defences of the sectors actually held, defences in rear must be provided in case of an enforced retirement, and in the case of an advance the provision of the necessary communications, material and defences, to enable the troops to hold the ground they have gained.

In addition to the provision and maintenance of the necessary roads to enable the movement of traffic of the Corps, the construction of forward roads, field tracks, Infantry tracks, etc., to enable the Corps to advance, must be undertaken. As this is in the Forward Area, it generally has to be carried out at night and under great difficulties. In the case of an enforced retirement provision for the demolition of roads and bridges and anything which will obstruct or delay the enemy, must be made.

Tramways.—The construction, maintenance and operation of tramways in the Forward Area are carried out by the Engineers. The line of demarcation between the Army organisation of light railways and Corps tramways is roughly the points to which the Army light railways can safely deliver in bulk by steam in daylight. All operation in front of this is carried out by the Corps tramways, which take over the cars at the transfer sidings and deliver in detail forward The Canadian Corps Tramway Companies operate and maintain about 75 miles of line in the Forward Area and handle the delivery of ammunition to all guns with positions otherwise inaccessible, trench munitions and supplies to the Forward Area, they carry working parties, Brigade reliefs, evacuate wounded to the dressing stations, and are being used for specific offensive operations. In the Corps Area about 150 trains a day are operated forward and an approximate daily tonnage of about 2,000 tons is carried into the Forward Area, practically all of which would otherwise have to go in by horse transport, pack mules, or be carried in by hand.

Water Supply.—In addition to the provision of water supply necessary for drinking, cooking and washing for the men and water for the horses, arrangements have also to be made to take care of a sudden advance into a new area of the large number of men and horses involved, an area in which little is known of the facilities for water supply. An important feature of the question of the water supply for horses is that they must all be watered three times a day, and the strain on the available supply comes on at approximately the same hours. As it is very uncertain that engines or pumps will be available, methods have frequently to be improvised.

Mining and Tunnelling.—Defensive mining is carried out to protect our lines from attack underground by the enemy and to ascertain his whereabouts underground and his intentions.

Offensive mining is carried out to attack the enemy workings, to destroy enemy strong points, to defilade the fire from machine gun nests which cannot be reached, to break a hole through the enemy's first defence system, to blow communication trenches to connect our system with his and to provide a passage covered from view for our troops.

Tunnelling is carried out to provide shell-proof cover in dug-outs for the Headquarters, the personnel of the Units in the Forward Area, and subways to facilitate the passage of men in the Forward Area through a zone which is subjected to heavy shell fire.

Bridging.—Provision must be made for the construction of necessary bridges to facilitate traffic in the areas occupied, for duplicates of bridges likely to be destroyed, and for any bridges required in an advance. Careful arrangements must be made for the destruction of all bridges in a retirement.

Inundations.—During the retirement of the German Army from August, 1918, to November 11, 1918, very successful demolitions were carried out on canal locks, canal banks, etc., which resulted in the inundation of many square miles of country, and the rendering useless for navigation of the network of canals which exist in France and Belgium. The repair of the banks, locks, etc., was carried out by the Engineers, and the natural flow of water regulated, so that in a comparatively short time the canals were once more open for navigation. The draining of the inundated area was also carried out by the Engineers.

Camouflage.—The provision of material and supervision of the erection of camouflage, cover for guns, headquarters, sleeping huts, machine gun emplacements, observation posts, etc., is carried out by the Engineers. During the operations from August 8 to 19, 1918, over 100,000 square yards of camouflage material were issued and erected, and during the operations from August 26 to November 11, 1918, over 159,000 square yards were issued and erected.

Engineer Stores.—It is now impossible to purchase any stores or material locally, as the country has been stripped, and the French Authorities reserve to themselves anything which is left. In consequence the requirements of the Corps as regards engineer stores have to be foreseen, estimated, and asked for six weeks ahead, and obtained through regular Army channels from outside sources. Engineer stores include cement, corrugated iron, felt roofing, steel joists and rails, posts and wire for entanglements, shelters, wire netting, expanded metal, hurdles, canvas and frames for revetting, trench boards, bricks, baths, stoves, ironmongery, timber of all sizes, electrical stores, mining and tunnelling stores, water pipes and fittings, pumps, etc.

The stores and materials are received in bulk at the Corps R.E. Park established at broad gauge railheads. From there they are allotted to the Corps or Divisional Engineer Services, and transported by light railways or tramways, lorry or wagon transport to Advanced Corps R.E. Park, Divisional R.E. Park, Advanced Divisional, Brigade and Battalion Dumps.

At each Corps R.E. Park workshops are established wherein, as far as possible, timber is re-sawn to sizes required, and made up into standard designs for mining frames, revetting frames, trench boards, notice boards, gun emplacements, sectional huts, targets, trench bridges, infantry bridges, artillery bridges, etc. In addition to the sawmills', tinsmiths, and plumbers' shops, blacksmiths' shops, machine shops, paint shops, etc., are in operation to produce articles which can be obtained in no other way, and to save Divisions as much work as possible.

Should the programme of work required to be carried out on the Corps front in a given time be more than can be undertaken by the Canadian Engineer Units available within the Canadian Corps, the situation is met by the attachment, under Army Orders, of Royal Engineer Units for work under the Chief Engineer.

Battalion, Canadian Engineers.—A Battalion, Canadian Engineers, is responsible for the carrying out of all work that may be allotted to it by the Brigade. In stationary warfare or war of movement it is given a definite section, and the Battalion

Commander is responsible to the Brigade Commander, who, in turn, is responsible to the Divisional Commander, that defences, trenches, roads, accommodation and water supply in that area are constructed and maintained at all times. Engineer Battalions are available for holding the line in defensive and offensive operations, searching for, removing and negativing land mines, delay action mines, "booby traps," etc.; helping the Infantry forward by constructing foot bridges over rivers, canals, swamps, etc., and clearing the way, constructing light bridges and preparing roads for horse transport to permit the field guns and ammunition to get forward; constructing heavy bridges and repairing roads for passage of heavy guns and lorries; rapid development of water supply for all purposes as the advance progresses; rapid construction of light railways to get ammunition and supplies forward and also save lorry transport and the roads; removal of obstacles of all natures to the advance, such as clearing roads of felled trees, filling in of craters, or draining off of inundations.

Tunnelling Companies, Canadian Engineers.—During stationary warfare these Companies are employed under the Controller of Mines (Army). They are responsible for the offensive and defensive mining (both shallow and deep), also for the construction of deep dug-outs, Infantry subways, etc.

During mobile, offensive warfare, they are employed in searching for, removing, and negativing land mines, delay action mines, booby traps, etc; maintenance and repair of roads, removing of obstacles, etc.

During the German Offensive in March, 1918, they were also employed in the construction of trenches, machine gun emplacements, dug-outs, wiring, etc., in the rear area.

Army Troops Companies, Canadian Engineers.—These Companies are employed under the C.R.E., Corps Troops, for engineering work in the Corps area. The work is very varied and comprises construction, maintenance, and development of water supply, construction and repair of bridges, construction and maintenance of trenches, machine gun emplacements, wiring, etc., operation of Corps workshops and Corps R.E. Parks, hutting, etc.

Anti-Aircraft Searchlight Company, Canadian Engineers.—The Anti-Aircraft Sea.chlight Company, Canadian Engineers, is employed under the Anti-Aircraft Defence Commander (Army), and works in conjunction with the Anti-Aircraft Batteries in protecting the Corps area from hostile aircraft.

Tramway Companies, Canadian Engineers.—Tramway Companies, Canadian Engineers, were organised to handle forward transportation and distribution problems. All tramways in the Forward Area are constructed and maintained by these Companies. They carry both heavy and field gun ammunition and deliver direct to the batteries. They also carry forward engineer material and assist in the transportation of troops, the evacuation of wounded to the rear, the delivery of rations and water to the Forward Area, and evacuation of salvaged material. The average daily tonnage handled by Corps Tramways varies between 1,500 and 2,000 tons.

THE CAVALRY AND CYCLISTS.

The Corps Cavalry and Cyclists have not had much opportunity during the war of fulfilling the functions allotted to them in the manuals, which were fighting, and the protection of other Arms. They have mostly been used as observers and working parties during stationary warfare, to augment stretcher bearers and other service, during the trench to trench warfare of 1916 and 1917, and as orderlies and messengers during the last few months of the war in the semi-open warfare. In such duties they have been invaluable.

THE CANADIAN ARMY SERVICE CORPS.

The Canadian Army Service Corps is, as is generally known, subdivided into Mechanical and Horse Transport Units and formations of supply, and in the discharge of its prescribed duties in the Field since the Spring of 1915 has operated in a variety of ways more or less closely connected with the specific work for which it was created. The vehicles of each Mechanical Transport Unit were primarily ear-marked for certain specific purposes. The work of a Corps Troops Mechanical Transport Company is to ration the personnel and horses of formations in the Corps that do not form part of a Division. A Divisional Mechanical Transport Company's work, primarily, is to draw the supplies and Field ammunition required by its Division. In practice, however, all the Mechanical Transport is "pooled" and the lorries not required for the work for which they were primarily intended, and which must take precedence over all other duties, are detailed by the S.M.T.O. for the carriage of R.E. stores, road material, troops and any other duties necessitated by the conditions obtaining at the time.

This system makes for flexibility, inasmuch as it permits of transport being diverted to the work that is most pressing at the time, reduces dead mileage to a minimum, and makes it possible for the Mechanical Transport at the disposal of a Corps to cope with conditions that may be constantly varying. In general, however, its responsibilities may be classified under one or other of the following headings:—

- (a) The efficient maintenance of the mechanical and horsed transport serving the Corps Headquarters and Troops, the four Divisions, and the 5th Divisional Artillery.
- (b) (i.) Demands for, and control of, adequate supplies of food, forage, fuel, etc., and their distribution, on the basis of respective strengths, from the nearest railheads to all Units and formations forming part of the Corps and Divisional establishments or temporarily attached thereto for rations; (ii.) The supplementation of such supplies, where necessary, by local requisition (more particularly as regards fuel, fodder and vegetables); (iii.) The administration of, and accounting for, any such supplies captured from the enemy; (iv.) The temporary rationing of civilians in areas recovered from enemy control.
- (c) The haulage from railhead of practically all stores equipment, mail, etc., consigned or for issue to formations or individuals in the forward area.
- (d) The performance of any detailed duties at any time involving the use of transport other than that assigned under establishment to Units of other Branches of the Service.

The administration of this service within the Corps is assigned to Corps "A" and "Q" Branches, from whom emanate instructions to each Divisional "A" and "Q." Who in turn deal principally with two C.A.S.C. Units,—one, known as the Divisional Mechanical Transport Company, consisting of 9 Officers and 346 O.R., under the command of a Major, and furnished with 85 motor lorries,—now pooled for general services; the other, the Divisional Train, commanded by a Lieutenant-Colonel, and comprising 24 Officers, 412 Other Ranks (including a supply section of 48 O.R.), with 390 horses (314 H.D.) and 158 waggons—usually termed second line transport to distinguish it from Unit's regimental (first-line) transport, with whose inspection the Officer Commanding Train is charged, and for whose efficiency as senior Transport Officer of the Division, he is primarily responsible.

As regards the Divisional Mechanical Transport Company, many transport duties are assigned to this Unit, but in the limits of this report it will only be possible to deal with the handling of rations and other Army Service Corps supplies. The Company is divided as regards its lorry convoy into a Divisional Troop Section and three Infantry Brigade Sections—corresponding with the four companies and refilling points of the Divisional Train. The sections report at railhead, which during the summer of 1918 varied in distance 10 to 20 miles from the fighting area. Owing to the systematic destruction by the enemy during evacuation, of railways and bridges—destruction which continued far more rapidly than the facilities for repair—it was frequently necessary for the Mechanical Transport convoy to make wide detours in bringing supplies to points where they could be turned over to horsed transport. On other occasions the supplies had to be dumped at a considerable distance behind the front line, in consequence of the damaged roads being impassable for lorries, and picked up by waggons and limbers, which in emergencies could proceed across fields or otherwise evade mined points and shell-holes. During the past summer's operations both Mechanical Transport and Heavy Transport played a very important part, the former in hauling supplies expeditiously over great distances which occasionally intervened between railhead and refilling points; the latter, in carrying them forward in spite of all obstacles, thus making it possible for the Infantry and Artillery to follow up rapidly a fast-retiring army which was causing all possible damage to rail and road in order to protect itself from absolute destruction. Railways are, of course, useful only so long as they are kept repaired and plentifully supplied with fuel; and Mechanical Transport, with its heavy 3-ton lorries, is only of service whilst the surface of the roads remains hard. But the faithful horse and mule, plod on perseveringly through mud and slime, occasionally on short rations, and often during the darkness of the blackest nights, guided only by the lights of the Infantry flares ahead. Last year the supply waggons of the Artillery frequently travelled with the guns, supplies being so off-loaded that it was not necessary for the gunners to leave their posts, as a detail could carry them from the point where they were dumped—and cooked on an open brick fire—to the gun-pit.

The duties of a Divisional Train include (as already mentioned) the receiving and transmitting of supplies to the numerous Units composing a Division, and also the transporting of Units' baggage, both personal and technical. Each of the

four Companies is divided into three parts, namely Headquarters Section, Supply Section, and Supply and Baggage Transport Section: and to each of these an officer and two N.C.O.'s are attached. To No. 1 Company, which is more than twice the strength of the Brigade Companies, are allotted the duties of rationing and transporting baggage for what are known as the Divisional Troops, which include two Brigades of Artillery, the Divisional Ammunition Column, one Machine Gun Battalion, one Engineer Battalion, three Ambulances, one Signal Company, and various small Units included in a Divisional Establishment. Each of the three Brigade Companies is responsible for feeding and transporting the baggage of one Brigade of Infantry. All are provided with trained artificers, saddlers, wheelers and farriers, who subject, to their Commanding Officer and Company Commander, are charged with the responsibility of keeping in good repair the harness and waggons, and of supervising the horse-shoeing of the Units served by their respective Companies.

When any such Units are ordered to move, the "Q" Branch of the Division, which deals with such matters, advises the Officer Commanding Train of the pending movement. The Senior Supply Officer is similarly warned, with a view to the amendment, if necessary, of existent arrangements as to indents for and distribution of rations. The Commanding Officer in turn issues orders to Company Commanders concerned, as to where and when Units are expected to move, and directs any necessary postings between Companies of transport drivers and waggons, to serve their Units within a new ration group, should a change become necessary for topographical reasons. These redistributions may occur in the case of any formation except the two Brigades of Artillery and the Divisional Ammunition Column, which always remain with No. 1 Company.

Concurrently, the Senior Supply Officer, a Major on the strength of the Train, having been advised by Division "Q" of changes in connection with railhead, Army Service Corps supplies, and components of the Divisional ration group, issues instructions to his four Supply Captains (one for each Train Company) as to any alterations in the feeding strength of their Units, and in case of movements, locates new refilling points if necessary. This is usually done in conjunction with the Officer Commanding Train, and orders covering movements, locations of Units, varying feeding strengths, switches of formations between ration groups, positions of new dumps, and movements of supply details, transport turnouts, etc., and instructions in connection therewith, are issued to all Company Commanders

and Supply Officers, a copy being sent to the Officer Commanding and the Senior Officer of the Mechanical Transport Company, to inform them of the new locations where lorries are required to dump supplies. This is necessitated by the fact that the lorries are loaded at railhead in bulk for the four groups.

The nature and quantity of such supplies depends upon the indents received from Units, consolidated by the Brigade Supply Officer on Army Form 3316, and by the Senior Supply Officer on Army Form 3317, and forwarded to the S.O. of the Mechanical Transport Company. On arrival of the supplies by motor transport at their respective refilling points, these points being usually located in the Forward Area, they are off-loaded, and a check made by the Supply Officer as to quality and quantity. The Supply details attached to the dump then apportion them to the different Units of their particular group, and they are loaded on the waggons and limbers of the Divisional Train and transported to the Quartermaster's stores of the respective formations. They are once more checked in order to ascertain whether they comply with the requirements set out in the indents.

Summarising this, the normal procedure, it may be seen that the delivery of rations, etc., from railhead to the point where they are taken over by the Units' first line transport, involves two hauls, one by lorries of the Divisional Mechanical Transport Company to the respective Refilling Points (or "Supply Dumps"), the other by horse transport from the Dumps, after subdivision, to all the Units and Formations of the various groups, ranging from small isolated parties of three or four men (e.g., Town Major's staffs or guards of ammunition dumps) to a Battalion of over 900 men and 55 animals.

This sequence of functions is not invariably followed. It is occasionally necessary for Train Transport to haul from railhead to the dumps, or even to the Units' lines, owing to the Mechanical Transport being withdrawn on account of the condition of the roads, or for other duties. As a rule, under such circumstances, the first line transport picks up its Unit's supplies at the refilling point, and carries it to the Quartermaster's stores, or beyond.

A few words regarding the method of indenting for supplies. Each Unit prepares, daily, a statement on Army (Form) B. 55 of the number of personnel and of horses (the latter classified under three categories) for whom rations are required, together with a list of articles usually termed "Sundries," such as oils and disinfectants, likely to be needed. At the supply dumps the A.B. 55's for the group are tabulated on Army Form W. 3316,

and the 3316's daily compiled for the four refilling points are collected by the Senior Supply Officer, consolidated on Army Form W. 3317, and forwarded to the S.O. Mechanical Transport Company. Such demands as are urgently needed and cannot be drawn from the pack train may be obtained from Field Supply Depots or reserve stores located in the forward area. The period elapsing between the time an A.B. 55 is submitted and the date on which the rations are consumed is usually four days. For example, indents are submitted and consolidated on the 1st of the month, for rations to be drawn from the pack train on the 2nd, for issue to Units from the dumps on the 3rd, and for consumption on the 4th. The correct distribution of the supplies as between the four Groups is determined by the S.O.Mechanical Transport Company by reference to A.Fs.W.3316.

In addition to superintending the distribution and haulage of supplies for all Units of the Division, and ensuring that sufficient baggage waggons are always available for the use of Battalions in the event of a sudden move, the Commanding Officer of the Train, in his capacity of senior Transport Officer, is responsible for the proper upkeep of First Line transport, and in the discharge of this duty, assisted by his Company Commanders, one Major and three Captains, holds monthly inspections and renders detailed reports containing criticisms and suggestions for the guidance of Units' Transport Officers.

The problem of subsistence for the inhabitants of reclaimed towns and villages in Northern France and Belgium was a necessary incident of the rapid advance of the Canadian Corps in the Fall of 1918, subsequent to the capture of Cambrai. The rapidity with which Divisions' responsibilities increased in this respect may be illustrated from the experience of the 4th Canadian Division. On the 19th October last a telegram was received from 10th Brigade Headquarters by the Senior Supply Officer that the town of Abscon contained 2,300 civilians who must be fed, if possible, on the following day. Later on the same day, the occupation of the large town of Denain and the necessities of 5,000 inhabitants were reported, the ration figure being later increased to 15,000, and the next day to 28,000. The Corps organised a special branch to arrange for feeding civilians in its area, and placed in charge an Officer of the 1st Divisional Train who, working in conjunction with the French mission, kept hourly in touch with the situation and instructed Senior Supply Officers as to their respective ration groups. Depots of "iron rations" and jam and milk, had been established at different

points by the Army. To supply requirements on the 20th, rations were made available from the Railway Supply Officer's store at Arras, through a special liaison officer, and were then hauled over this great distance by lorries of the Mechanical Transport Company. The supplies were delivered to the Maires of the towns requiring them, and instructions given as to the manner of distribution, depots being opened by the town authorities and rations handed out to civilians calling for them. Receipts were obtained from the Maires and forwarded through the usual channels to the Deputy Director Supply and Transport of the Army to which the Corps was then attached. In pursuance of arrangements previously entered into with the French Government, the Division's responsibility for feeding civilians should have expired after four days, large stores having been accumulated for them at Boulogne; but owing to transportation difficulties the first French pack train did not arrive until November 5. Needless to add, the relief convoys were very heartily welcomed by the local population and a very large number of areas benefited by their prompt activity.

Many and varied have been the duties performed by Mechanical Transport and Train Transport, as the following examples amply show:—

In the Spring of 1916, the 2nd Canadian Divisional Train was asked to transport a large number of gas cylinders to an advanced position. To carry out this project successfully, it was necessary to bind all waggon wheels with old automobile tyres, pad loose parts of the waggon with canvas, muffle chains and loose parts of harness with sacking, and, upon approaching the Line, to cover the horses' hoofs with the same material. Thanks to these precautions, the operation was carried out with very slight loss of life, although at this point the width of No Man's Land was much less than usual, and the roadway was almost continuously swept by machine-gun fire.

At Albert, in the Fall of the same year, train transport was employed to draw cars of ammunition on the light railway to Sausage Valley, prior to the fall of Courcelette.

· From January, 1917, until two weeks before the attack on Vimy Ridge, the Trains were supplying convoys of from ten to forty waggons per night, to haul 18-lb. shells to advanced Artillery positions.

During September, 1917, a large programme of work for the Engineers was carried out by the 4th Train in the Forward Area,

and over 1,130 waggons were detailed for day or night duty, exclusive of hauling of supplies.

About the same time, the 2nd Train successfully delivered Engineer material by night almost to the Front Line, for the construction of an Advanced Dressing Station preparatory to the Sallaumines attack.

In November, during the period of intense fighting near Passchendaele, horse transport was largely employed in the hauling of miscellaneous material, such as barbed wire and trench mats, to assist in consolidating our advanced positions; and heavy bombing and shell fire alike failed to divert the convoys from delivery of their supplies.

During the latter part of the summer of 1918, both men and horse were taxed to the utmost in hauling supplies 20 to 30 miles per day over muddy roads, byways and even fields, and in some Trains heavy losses were incurred from enemy action. In no instance, however, were Units deprived of their rations.

The foregoing is necessarily a light sketch of a large subject, and it is felt that it does less than justice both to the mechanical or horsed transport Units, with whose unobtrusive but capable and conscientious work it is designed to deal; but it is hoped that enough has been said to indicate that the Canadian Army Service Corps in the Field, in all its branches, has played an indispensable role in Corps operations, with efficiency and success.

THE DIVISIONAL TRAIN.

The Lieutenant-Colonel Commanding the Train is directly responsible to the G.O.C., Division for all executive duties in connection with supplies and transport. In the discharge of these functions he must keep in close touch with the "A" and "Q" branches of the Division. As Senior Transport Officer he is responsible to the G.O.C. for the efficiency of all First-Line transport.

The Senior Supply Officer is charged with the duties arising from the supply requirements of the Division as embodied in formations' demands, and attends to the taking over of all rations, forage, and Army Service Corps supplies, inspects them as to the quality and quantity, and supervises their proper distribution to the four Companies' dumps. He chooses new refilling points according to the locations most favourable for their establishment, readjusts the constitution of the various

ration groups as may be necessary owing to movements of Units; ensures that Units' Quartermaster Stores do not accumulate supplies, furnishes the Officer Commanding Mechanical Transport Company with a daily statement as to the feeding strength of the four Groups, and is generally responsible to the Commanding Officer for the efficient rationing of all Units on the strength of or attached to the Division.

The Officers Commanding the four Companies of the Train attend to the proper maintenance of personnel, horses and vehicles, on the strength of, or attached to, their respective Companies. They usually inspect and report upon the condition of First-Line transport within their Group, superintend the internal economy of their Companies, and carry out all routine duties and special transport or other details, which may be assigned to them.

The Supply Officers are each in charge of one Refilling Point staffed by nine other Ranks. They collect the daily A. B. X55's from Units of the Groups, tabulate these demands on A.F. W. 3316, and forward the latter to the Senior Supply Officer for the information of the Officer Commanding and the Supply Officer Mechanical Transport Company, retaining one copy to enable a correct distribution to be made to Units on the basis of indents when supplies are received. Any shortages or defects of quality are notified at once to the Senior Supply Officer. They frequently visit Units' Quartermasters to receive complaints, and either make adjustments or report the circumstances to superior authority. To sum up: they are primarily responsible for maintaining the proper quality and quantity of Army Service Corps supplies in their Group.

Officers in charge of Horse Transport Sections of Companies supervise the upkeep of their sectional turnout within the lines and accompany them on supply or baggage convoy, besides taking their share in the ordinary Company routine. In the case of the section allotted to transport of supplies, the Lieutenant i/c Section is expected to be present at the refilling point and to ensure proper loading, to enforce discipline en route, and to satisfy himself that all supplies are delivered to the Units to which they are assigned. Should loss or accident occur through enemy or other causes, he must immediately report the circumstances to the Supply Officer of his Brigade in order that the Unit may not be deprived of rations.

The Requisitioning Officer, as his title implies, was included in Train Establishment, to obtain locally, such Army Service Corps supplies as might be needed to supplement receipts from the daily pack train. As a matter of practice, he has usually been engaged on other duties, and in the case of the 4th Canadian Divisional Train, has been continuously "on Command" with the Central Purchase Board since the winter of 1916-17.

THE MEDICAL SERVICES.

Functions.—The work of the Medical Service of the Corps is: (1) Preventive; and (2) Corrective.

(1) Preventive—This aspect of the Service is concerned with maintaining the health of the Forces and in avoiding impairment of effective strength through sick wastage. It includes the supervision and control of hygienic and sanitary conditions in every way.

It deals with:

The hygienic and sanitary conditions of all places occupied or frequented by troops, including trenches, dug-outs, billets, barracks, messrooms, cook-houses, ablution and bath-houses, etc.

The sufficiency, quality, wholesomeness of food, its proper storage, preservation, and preparation.

The potability of, and the purification of water.

The personal cleanliness of troops and the adequacy and proper construction of bath-houses.

The sufficiency and cleanness of clothing, blankets, etc.

The vermin disinfectation of clothing, blankets, etc., the adequacy and proper construction of disinfestors.

The inoculation and vaccination of troops.

The isolation of cases of infectious disease and of contacts, their disinfection and the disinfection of their billets, clothing, blankets, etc.

The location, adequacy, and proper construction of latrines, urinals, grease traps, garbage pits, and incinerators, and their maintenance in a sanitary condition.

The proper disposal of excreta, garbage, sullage, etc.

The sanitary condition of horse standings and the proper disposal of manure.

The prompt burial of dead animals

(642)

In all previous wars the sick wastage was many times more than the wastage of battle. The perfection of the preventive work of the Medical Services has entirely changed this, and the incidence of sickness has become less than in civil life.

(2) Corrective.—This aspect of the Service is concerned with the treatment and care of sick and wounded, as far as this is practicable in the zone of military operations, and with the disposal of casualties.

The Corps, being a battle formation, must be kept mobile and cannot be burdened with casualties who will be ineffective for more than a short period. Therefore such casualties, whether sick or wounded, are evacuated at once from the Corps to Casualty Clearing Stations which are outside the Corps and battle zone.

While the particular functions of certain Medical Units are of a preventive aspect, and of others of a corrective aspect, all members of the Medical Service are specifically charged with the duty of concerning themselves with the incidence and spread of disease amongst the troops or amongst the surrounding civil population.

Deputy Director Medical Services.—This officer is the responsible adviser of the Corps Commander in all Medical Service matters, and is in charge of all aspects of the Medical Service of the Corps. He is assisted by a Deputy Assistant Director Medical Services.

Assistant Director Medical Services.—There are four; one with each Division. An A.D.M.S. is the responsible adviser of the G.O.C. the Division in all Medical Service matters within the Division and, under the D.D.M.S., is in charge of the Division Medical Services.

Assistant Inspector of Drafts.—This officer is directly under the D.D.M.S. His function is to hold Medical Boards for the purpose of classifying troops in categories according to their physical fitness. This enables the authorities concerned to assign soldiers to their duties for which they are physically fit. The Units of the Corps are reviewed in this way every two months.

There is a Medical Officer attached to each Unit from the C.A.M.C. He must regard himself as an officer of the Unit. He is responsible to the Commanding Officer for the health of the Unit; that all sanitary arrangements are beyond reflection, and that all sicknesses are immediately and properly attended

to. He is responsible that measures are taken to prevent or check disease, and to alleviate all evil effects from strain and exposure. He must study human nature very thoroughly, dealing firmly with any malingerers or shirkers, and considerately where attention is required. He must take precautions against the spread of any contagion, and advise as to baths and disinfection of clothing. He must at all times watch very closely to see that sore feet receive proper attention.

Out of the Line he holds daily sick parades and inspections, superintending the evacuations where necessary. In the line he is governed by conditions, and attends to wounded immediately at his dressing station if practicable, but otherwise wherever they may be. He also visits each day all posts to see if any men on duty require attention. He is responsible for the training of the Unit Stretcher Bearers, and he is responsible for their supplies, and for the supplies of all medical stores. He has his own immediate staff for the maintenance of his Dressing Station, also a Sanitary Corporal, who works with the Pioneers; and a water detail that takes special charge of the water carts, and of the testing of all water supplies, to ensure that only good water is issued to the men. He is assisted by:

Medical Orderly.—One to each Unit. These soldiers have undergone the regular course of C.A.M.C. training and are proficient in dressing, bandaging, disinfection of apparatus and instruments, etc.

Stretcher Bearers.—There are 16 to each Unit, with additions as necessary during battle. They are not C.A.M.C. personnel, but are trained by the R.M.O. in stretcher drill and are detailed by him for duty during battle.

Water Details.—Five to each Unit. They are not C.A.M.C. personnel, but are trained by the R.M.O. in the sterilisation and handling of water supply. They carry on under his supervision.

Field Ambulances.—The function of a Field Ambulance is to collect and concentrate casualties from Units, give them medical care and treatment as far as this is practicable in the forward zone, and finally to make disposition of them either by returning them to their Unit for duty or by evacuating them to a Medical Formation more permanently located for further medical care and treatment.

A Field Ambulance is the essential battle formation of the Medical Services. Its organisation must be kept in the highest state of perfection to withstand the heavy strain of battle. A Canadian Field Ambulance has handled more than 4,000 battle casualties in 30 hours, and given each case good attention.

During a battle a requisite number of Field Ambulances is divided into sections, each of which operates an Advance Dressing Station. This A.D.S. collects and concentrates casualties from several Units. Main Dressing Stations are operated by still other Field Ambulances, and these collect and concentrate the casualties from several A.D.S's and evacuate them to the Casualty Clearing Stations back of and outside the Corps.

As a rule, remedial measures for battle casualties that are undertaken by Field Ambulances, are confined to the sustaining of the patient in the best possible condition until he can reach the Casualty Clearing Station, where complete operating and other hospital facilities exist that cannot be maintained in the changing battle zone. Therefore, only minor surgery is done at Field Ambulances as a rule, except that emergency major operations are undertaken at Main Dressing Stations in cases of urgent necessity.

Rest Stations.—There arises a class of sick or wounded, most of whom are able to be up and about, whose ailments are not of a severe nature or prolonged. It is found, particularly in quieter periods, that wastage can be reduced by retaining these cases in the Corps. For this purpose "Rest" Stations as required are established in the back part of the Corps area. These Stations are operated by Field Ambulance personnel.

At the Corps Rest Station there is a Skin and Scabies Centre, and an Eye, Ear, Nose, and Throat Centre, where special treatment is available, and where defective vision is corrected with spectacles.

Motor Ambulance Convoy.—The function of this Unit is the transport of wounded from Main Dressing Stations to Casualty Clearing Stations. It works in close co-ordination with Field Ambulances, which it must keep clear of congestion. It is a very important branch of the Medical Services, particularly in battle.

THE ORDNANCE SERVICES.

The Ordnance Corps is responsible for the supply of guns, arms, equipment, clothing and stores of all kinds to the troops in the field. The supply of ammunition is not made by Ordnance,

but the Assistant Director Ordnance Services of the Corps is responsible for the location and arrangement of dumps, care and preservation of ammunition, and for all technical questions in connection therewith. For this purpose he has at his disposal one or more Ammunition Sections detailed from the Army, each consisting of one officer and nine other ranks.

The Armourers are charged with the supervision and repair of all rifles, revolvers, machine guns and bicycles in the Corps. Minor repairs are carried out regimentally by the Battalion Armourer Staff Sergeants and Armourer Corporals, of whom there are four in each Battalion, and more important repairs are effected in the Armourer Shop, there being one of these in each Division, the personnel being found from the Divisional Armourer Sergeant-Major, the three Brigade Armourer Quarter-master-Sergeants, and two or more of the Regimental Armourer Staff Sergeants, assisted by men attached from Battalions who have had experience as mechanics in civil life and are being trained to qualify as Armourer Corporals.

The Light Shops deal with field guns and carriages and transport vehicles, and to a certain extent with heavy Artillery, and the Medium Shop with heavy and siege equipments. In each Army there is an Ordnance Mobile Workshop Heavy, which has more elaborate machinery than the light or medium shops, and which is capable of undertaking the most delicate and extensive repairs. Equipments, the repairs to which are beyond the scope of the Corps shops, are sent to the heavy shop.

All demands for guns, arms, clothing, equipment and stores are submitted by Units to the Deputy Assistant Director

Ordnance Services administering them.

Units' indents are checked by the D.A.D.O.S. with the Mobilisation Store Table of the Unit, which lays down, in detail, the stores the Unit is entitled to, and with the D.A.D.O.S's records of issues to, and returns from, the Units concerned.

Each indent bears a certificate of the Commanding Officer of the Unit that the stores demanded are to replace those lost or rendered unserviceable through the exigencies of the Service, or that they are a first supply. In the latter case the authority for the issue is quoted.

In the case of demands for stores to replace unserviceable articles the indent is only passed when it is accompanied by the unserviceable articles, which are then returned to the

Base as salvage.

In the case of guns, carriages, sights, or optical instruments and vehicles, the indents for replacements must be supported by certificates of an I.O.M. that the articles demanded are beyond repair in the local shops.

Indents may also be submitted for certain articles of officers' clothing and equipment, on repayment; but this is discouraged, as in each Army there is an Officers' Clothing Depot where officers can obtain direct almost anything they require.

When indents have been checked they are passed to the Base or to the Gun Park, as the case may be, for supply.

Demands for certain articles which come under the head of what is known as "bulk," such as clothing of all kinds. horseshoes, mess tins, steel helmets, anti-gas appliances, etc., are consolidated into one demand for each Division or Corps Troops and sent by the D.A.D.O.S. to the Base by wire. fixed programme exists for the days of despatch from the Base of the different natures of "bulk," so that everybody knows exactly on what day of the week they will arrive at railheads. For instance, boots, uniforms, drawers, puttees, etc., are loaded at the Base on Mondays and arrive at railhead the following Wednesday; shirts, socks, etc., are loaded on Wednesdays and arrive at railheads on the following Friday. Stores other than "bulk" are despatched from the Base as soon as the demands for them are received. It usually takes five days from the time a D.A.D.O.S. receives an indent till the articles demanded are ready for issue.

Stores from the Base are sent up to Divisions and Corps Troops daily in the Supply Pack Trains and are off-loaded at Division and Corps Troops Supply railheads.

Here they are collected by the lorries attached to each Divisional and Corps Troops Ordnance and taken to the different refilling points, where they are collected by the regimental transport of the Units for which destined.

THE SIGNAL SERVICE.

The Corps Signal Company is responsible for communication with Flanking Corps, Division, Heavy Artillery, R.A.F. Squadrons, Kite Balloons Sections and Survey Sections, Anti-Aircraft Sections attached to the Corps, as well as all Railheads Supply Depots, Ammunition Dumps, Labour Units, Special Companies R.E., M.T. Units, Area Commandants, Ordnance Workshops, Staging Camps, C.C.S., Field Ambulances, etc., in the Corps area.

It is responsible for the construction and maintenance of all airline routes in the Corps for the use of the Artillery Division, Royal Air Force, Balloon Sections, Anti-Aircraft, Tramways and Survey Sections.

Wireless Telegraphy.—There are 20 Spark, 34 Continuous Wave, and 32 Loop Set Wireless Stations; also 24 Power Buzzer-Amplifier Stations and two Interception and Policing Sets on the Establishment of the Canadian Corps.

Continuous Wave Wireless is the latest and most up-to-date system of wireless communication, and has proved to be invaluable, especially during the last five months of the war. It has been used very extensively during the active operations for keeping in touch with Independent Forces, Observation Groups, and for communication between Infantry and Artillery Brigades and Divisions when telephone communication was impossible or temporarily interrupted.

The Interception and Policing Sets were used for the collection of information from messages and conversations passing over enemy telegraph and telephone systems, and for the policing and regulating of the traffic on our own systems in order to reduce to a minimum the amount of information intercepted by the enemy.

During the march to the Rhine, the existing routes did not always permit of even Corps and Divisions being connected by telephone, but constant touch was maintained between Brigades, Divisions, Corps, Army and Flanking Units by wireless

Visual Signalling.—This form of communication is used mainly in emergencies when it is impossible to maintain telephone communication during an action. For use in France, the Lucas Lamp has been found to be the most efficient piece of Visual Signalling apparatus.

Pigeon Service.—During trench warfare 1,000 pigeons are required for the Corps Pigeon Service. Birds are delivered by two motor cyclist despatch riders and taken into the trenches from these points by Battalion and Battery Pigeoneers. In normal trench warfare about 100 pigeons are sent forward daily and released after 24 hours' tour of duty.

In order to maintain sufficient Battalion and Battery Pigeoneers it was necessary to train 30 men per week as Pigeoneers. **Lines.**—The open wire telegraph and telephone lines of the Corps are constructed and maintained by the Airline and Cable Sections.

In the forward area, during trench warfare, cables are buried to a depth of over 6 feet for protection against shell-fire. The minimum number of pairs—25; maximum—50 in a trench. This work is usually superintended by the Officer Commanding Divisional Signals in whose area cables are being buried, assisted by officers and men from the Corps Cable Sections. The test point and routes are manned and maintained by Area Signal Officers and Corps Signal Company personnel.

Despatch Riders.—The work of a Despatch Rider, especially in the winter or in the forward area, is extremely difficult and hazardous on account of bad roads and shell-fire.

When an advance is made over a well-developed system of trenches where roads have been obliterated, it becomes necessary to attach Mounted Troops to the Signal Companies to assist in the delivery of despatches.

Portable Electric Lighting and Accumulator Charging.— The Corps Signal Company has three portable 3 K.W. Electric Lighting sets on its charge. Each Divisional Signal Company has one for the lighting of the Headquarters Offices, and the charging of accumulators for the wireless sets. In addition, each Divisional Signal Company is provided with a small 1 K.W. set for charging accumulators in the forward area.

Stores.—All Telephone, Telegraph, Wireless, Visual Signalling Equipment, Cable, Airline and expendable stores required for use of the Signal Companies, Artillery, Infantry, Machine Gun, Engineer Signal Sections of the Canadian Corps, as well as all attached formations, are drawn and issued by the A.D. Signals' Stores, the personnel for this work being supplied by the Corps Signal Company.

Canadian Corps Signal School.—The Corps Signal School was organised to train Signallers of other branches of the Service. It was found that Signallers were arriving in France as reinforcements without any knowledge of the latest equipment in use in the field, as sufficient technical equipment had not been provided in England for the Canadian Signal Training Depots. Under present arrangements, all Signallers arriving as reinforcements from the various wings are sent immediately to the Signal School for training until demanded by their Units. They are

given instruction in Station Work, Fuller Phones, Loop Sets, Power Buzzer-Amplifier Sets, Pigeons, Splicing, Testing and Jointing of Cables. Only Signallers who are passed as qualified in the use of all equipment are permitted to be sent as reinforcements to their Units.

GAS SERVICES.

Functions.—The Gas Services, Canadian Corps, is essentially an advisory and defensive organisation, existing for the prevention as far as possible of casualties from enemy gas.

In addition, the Chemical Adviser co-operates with the Corps Artillery, in particular with the Counter Battery Staff Officer, in arranging our gas shell attacks on enemy targets.

The Unit is executive in so far as the issue of Box Respirators, Alarms, and other gas defensive equipment is concerned.

Its functions may be summarised as follows:—

The training of all troops in Gas Defensive Measures as regards use of equipment and action to be taken under varied conditions of enemy attack by gas.

The transmission to all concerned of the latest information concerning the enemy's methods of gas warfare and our own.

The collection and distribution of all intelligence obtainable on the Corps frontage, and of specimens of all gas warfare material captured from the enemy. In particular the examination of captured or "blind" enemy gas shells, with a view to the early discovery of the use of any new gas.

Gas officers act in an advisory capacity to the headquarters staff to which they are attached in all technical matters.

Constant study and research for the improvement of our own gas appliances and methods of warfare.

The issue and maintenance to all troops of an efficient Box Respirator, individually fitted to each man and properly tested in gas at the time of fitting. In this connection the Unit has salvaged, repaired, and re-issued nearly half of the total number issued within the Corps, representing a total saving up to the present of several million dollars. This work is confined to the Canadian Corps so far as the B.E.F. is concerned, and has not been adopted as a general measure outside.

The upkeep of alarm systems, the gas-proofing of dug-outs, etc., within the Corps area.

So far as possible, the collection and maintenance for Canada of all available information, technical and otherwise, regarding Gas Warfare.

VETERINARY SERVICES.

While the primary aim of the Veterinary Services is the reduction to the lowest possible degree of preventable animal wastage, these Services have activities that ramify in many directions from this central idea. These activities can best be defined in a survey of the duties and responsibilities that devolve on the administrative officers.

Assistant Director of Veterinary Services.—The designation of "A.D.V.S." as applied to the position of this officer within the Canadian Corps, while not a misnomer, is still not fully indicative of his duties. The A.D.V.S., Canadian Corps, apart from his regular veterinary duties, carries out the duties of Assistant Director of Remounts. Thus the position is a dual one, and embodies the direction of two Services, which in the Imperial Forces are conducted as separate departments. Also the position of A.D.V.S., Canadian Corps, by virtue of the unique situation of the Corps in comparison with like formations in the B.E.F., is a complex one. As Assistant Director of Veterinary Services this officer is responsible in a professional way to the Director of Veterinary Services through the D.D.V.S. of the Army to which the Corps may be attached; while in all matters relative to administration and operations he is directly responsible to the Canadian Corps Command. The same applies in the matter of remounting of troops, the A.D.V.S., as chief Canadian Remount Officer in the Field, dealing directly with Army Remounts in a general way on the one hand, and being responsible to the Quartermaster General's Branch for administration and correct accounting on the other. In short, the duties of the A.D.V.S., Canadian Corps, may be explained as involving responsibilities in the prevention, in so far as possible, of animal wastage, and the repair of such wastage when it does occur.

Deputy Assistant Directors of Veterinary Services.—The duties and responsibilities of these officers may be taken as largely an epitome of the duties and responsibilities of the A.D.V.S., Canadian Corps. In them is vested the conduct and administration of the Veterinary and Remount Services of the Divisions, they being responsible to the Divisional Command and to the A.D.V.S. Obviously the duties of the D.A.Ds. V.S. are of a more active nature than those of the A.D.V.S. The D.A.Ds. V.S. are in closer relation with the practical work of the Services, personally supervising the daily professional activities of their veterinary officers and ensuring that animal management

within their respective formations is maintained at the highest possible standard. They must be constantly alive to the general condition of all animals under their charge, with a view to determining causes of wastage; they must scrupulously guard against possible outbreaks of contagious and infectious diseases; and must ensure that feeding, watering, grooming, shoeing, etc., are given the most careful attention. Sanitary horse and wagon lines must be maintained under any and all conditions of weather and active operations, and regulations and orders to this end must be rigidly enforced. Inspections of the condition of the animals of Units are carried out at a moment's notice by the D.A.Ds. V.S., while general inspections by the A.D.V.S. are carried out in like manner.

Veterinary Officers.—All Veterinary officers of the Divisions are responsible to the A.D.V.S. through the D.A.Ds. V.S. and to their immediate officers commanding. Their duties call for sound judgment and often for quick decisions. All matters pertaining to the direct veterinary care of the animals of their Brigades and Units come under their supervision; while it is on the veterinary officer that the Commanding Officer relies for advice in general affairs of horse management. In the case of Corps Troops (Units not forming part of the Divisions) and all Units and formations attached from time to time to the Corps for administration, the A.D.V.S. carries out administration direct and personally supervises the care of the animals and the details of horse management.

Mobile Veterinary Section.—There are four Mobile Veterinary Sections of Canadian Corps, one as a Unit of each full Division. These sections, as the designation indicates, are of a mobile nature, and act as the first channel of evacuation in the field. Sick and wounded animals are received into these sections, given "First Aid" treatment where necessary, and passed on down the line on their way to Base Hospitals. The personnel of a Mobile Veterinary Section consists of one officer and 19 other ranks; and particularly during active operations, this officer and his N.C.O.'s and men have arduous duties. During operations, advanced collecting posts are thrown out into which severely wounded animals are received and conveyed by ambulance to the Mobile Veterinary Sections.

Veterinary Evacuating Station.—The Veterinary Evacuating Station of Canadian Corps is a Unit with an establishment of one officer and 38 other ranks. The function of this Unit is that of a casualty clearing station for the Mobile Veterinary

Sections. All animals passing through the Mobile Veterinary Sections are evacuated to the Veterinary Evacuating Station, and through the V.E.S. are evacuated to the Base for treatment. At the V.E. Station a motor horse ambulance is constantly in readiness to collect animals that cannot be moved on foot. The V.E.S. of Canadian Corps is not confined to the reception of Canadian animals alone, but receives and evacuates animals from any Mobile Veterinary Section that may be operating in its area.

Sergeants, Canadian Army Veterinary Corps.—The field duties of these N.C.O's consist in rendering "First Aid" treatment in the absence of the Veterinary Officer, in reporting to the Veterinary Officer cases of sickness and injury, in constantly being on the alert for symptoms of contagious and infectious diseases, and in keeping watch for irregularities in animal care and management. In times of active operations the Sergeant, C.A.V.C., supplements in many ways the work of the Veterinary Officer, and under his officer's supervision acts as "dresser" of simple and minor injuries. The service rendered by these N.C.O's has been invaluable.

THE PAY SERVICES.

It is the duty of Paymasters to distribute cash and obtain receipts for payments made, accounting for same through the Field Cashiers to the Paymaster-General.

In addition to the distribution of funds, Paymasters maintain a regimental nominal roll, and are responsible for all entries in Active Service Pay Books affecting accounts.

They make advances of pay to officers, issue cheques to men proceeding on leave, attend to various matters regarding Pay and Allowances, Separation Allowances, Remittances of officers and other ranks, and Wills. They audit and are responsible for canteen books, and from time to time undertake special duties, such as procuring subscriptions to War Loans, etc.

Subject to the chain of responsibilities and duties shown in Appendix IV., the Field Cashier of the Canadian Corps receives his orders from the Corps Commander as issued through the "A" Branch of his Staff.

POSTAL SERVICES.

Incoming correspondence is received through two channels :—

(1) Unit letter and parcel mails are loaded at the Base in trucks for Corps Army Post Office and Divisional Railhead Army Post Offices, which are despatched by supply trains to

the appropriate supply railheads of the formation, thence by lorry to the Field Post Office, and by horse transport to the Units.

(2) All correspondence posted in the B.E.F., complimentary and subscribers' copies of the London daily papers, the "Canadian Daily Record," ordinary and official correspondence from the United Kingdom, Canada, etc., for Army, Corps, Division and Brigade Headquarters, are sent up by lorries from the Base. Hence they connect with the Corps postal lorry at the Army Postal Depot, the latter connecting up with the Corps and each Division under its administration. It is thus possible to obtain London daily papers at the Front the day following publication, and frequently (when the Packet arrives early at the Base Port) on the night of publication.

The Railhead Army Post Office with each Division is situated at the supply Railhead, and moves with its Division on a change of Railhead. This office operates as a mobile Depot for the Divisional mails and is connected by lorry with the Corps, and thence with the Army and the bases. It consolidates the outgoing mail for the five Field Post Offices of its Division into complete despatches for the Corps, Army, General Headquarters, Bases, Departments of the G.P.O., London, and Provincial centres in England where necessary. Similarly all incoming mails for the Divisions are sent to the Railhead A.P.O. and are there separated, loaded on lorries, and despatched to the F.P.O. from which the Unit collects its mail. A daily service is maintained for all Units, both for incoming and outgoing mails, while there is a twice daily service for official correspondence posted in and addressed to formations within the Army area. The Corps F.P.O., in addition to handling the correspondence proper to Corps Headquarters and Corps Troops, acts as a connecting link between Corps and its Divisions, and as a transfer point for letter mails to and from Divisions and points outside the Corps area (i.e., Army, General Headquarters, Bases and the United Kingdom).

All letter mails for the United Kingdom and Overseas are despatched daily to the Base by lorry, arriving in England the afternoon of the following day.

Treatment of Correspondence undeliverable with the Unit.— Normally correspondence is redirected by the Unit mail orderly in cases of detached personnel and delivery is thus secured through the ordinary channels. In the case of casualties, however, the Unit is not for some time aware of the man's whereabouts, and this class of mail is sent to a Canadian Postal Branch at Canadian Section, General Headquarters, 3rd Echelon, where it is redirected, as soon as hospital reports are received, to the addressee's hospital location. Indefinitely addressed correspondence is similarly dealt with and redirected from Base Records. In no instance is correspondence returned to the sender in Canada as "undeliverable" unless the addressee has been killed or posted as missing, and then only after the endorsements have been verified from records.

Each Army and Field Post Office is fully equipped with stamps, facilities for cashing and selling postal orders, and handling incoming and outgoing registered correspondence. The Staff is composed of recognised employees of the Post Office Department, Canada, and the same attention as in civil life is given to every detail of the work.

THE CHAPLAIN SERVICES.

Chaplains.—Chaplains are appointed from the Canadian Chaplain Services to Brigades The Chaplain's first great duty is to minister to the spiritual needs of the men, and to sustain or improve their morals, emphasising the importance of morals as a factor in morale. His position is peculiar in that it brings him closer to the men in many ways than the officer who must exact discipline, but at the same time the Chaplain must consider himself as a soldier, respecting discipline and authority.

The Chaplain is responsible for Church Parades under instructions from the senior Chaplain, and under the approval of his Commanding Officer in the Unit to which he is attached. He has a unique opportunity on these weekday occasions, if a broad-minded man, to reason with those under his care on the necessity for the highest standard of conduct, thus supporting his Battalion in the achievement of morale. He is generally responsible for the promotion of entertainments for the men, and being in touch with the Y.M.C.A., in assisting in the promotion of recreation and the providing comforts for the men. Latterly, he has been invaluable in conducting and organising educational classes.

In action the Chaplain acts under instructions from his senior Chaplain, advised by his Commanding Officer. At times he must be detached to and employed at Field Dressing Stations, but generally he is found with the Medical Officer of his Unit, or at that place where his services can be utilized to the best advantage to the greatest possible number, *i.e.*, at the point where wounded and dying men will be brought from all quarters of the battlefield.

In stationary warfare, however, the Chaplain visits men in the trenches, and give encouragement or consolation as seems most suitable. The Chaplain is the man to whom the Unit looks for a fit and safe standard of living. Sincerity, above all things is most to be desired, and good broad views of human life. Honour where honour is due, and common sense and charity to those who stray. In action he is responsible for burials and for reporting particulars of the graves, etc., to the Divisional Officer, and to the Unit to which the deceased belonged.

PART IV.—MISCELLANEOUS UNITS.

The Canadian Corps Survey Section.—This is a Unit administered by the Artillery and is divided into four sections as follows:—

Artillery Observation Section.—This section is composed of two officers and 88 other ranks and operates six Observation Posts.

Its duties consist of the accurate location of hostile Batteries by means of bearings taken of their flashes, and the registration of our own guns by bearings taken on air bursts.

Intelligence Observation Section.—This section consists of one officer and 40 other ranks, and operates Observation Posts covering the Corps frontage, collecting all possible information concerning the movements of the enemy and reporting points of interest of an intelligence nature. They are charged chiefly with the watching of the rear areas opposite the Corps frontage, reports on the forward areas being left to the Brigade and Battalion Observers.

Headquarters Section.—This section consists of one officer and 14 other ranks. The duty of this section is to collect and co-ordinate the information supplied by the two groups.

In addition to this, one N.C.O. and seven men are charged with the task of the location of our own Battery positions and the preparation of fighting maps for the same. During a period of advances, such as was experienced during the last three months of the war, the Artillery Observation Section and the Intelligence Observation Section are combined.

They maintain usually three Observation Posts covering the Corps frontage and that of Flanking Divisions. They are constantly moving forward, keeping in touch with the advancing Infantry. This is done very largely by a screen of scouts thrown forward from the posts. Each post uses, as a rule, six scouts and two German-speaking personnel, the latter being employed to obtain identifications. When possible, scouts make a tour of the frontage allotted them three times daily.

The Posts are kept in communication with Headquarters by means of wireless (C.W. sets). These sets have a radius of about 1,200 yards.

In order to keep in touch with Counter Battery and Heavy Artillery it is necessary for the Headquarters Section to be located close to Heavy Artillery Headquarters or one of their forward exchanges. This, owing to the limited range of the wireless sets, very often necessitates the establishment of forward Headquarters. Under such conditions, the topographers (battery locaters) are used as a staff to man the report centre.

Headquarters Draughting Section.—Composed of one officer and 26 men attached to Corps Headquarters. This section is responsible for the reproduction and distribution of maps throughout the Corps. Five men of this section are attached to the Branch Intelligence Officer for interpreting and reproducing information obtained from aeroplane photographs.

The Headquarters Draughting Section is detached and forms part of the "I" Branch at Corps Headquarters.

The Y.M.C.A.—The Canadian Y.M.C.A. in France is a Unit of the Overseas Military Forces of Canada, with an authorised establishment of officers and other ranks. It seeks to serve all the Canadian Forces in France, although most of the work is naturally with the Canadian Corps. The work in France is administered from the Corps where Y.M.C.A. Head-quarters are established, with stores, equipment and offices. The organisation within the Corps consists of a Headquarters Company and a Field Company with each Division and with Corps Troops. The other ranks employed in the Corps area are administered through the 9th Canadian Area Employment Company, which was organised for this specific purpose. All officers and other ranks employed outside the Corps are administered through the Y.M.C.A. Military Services Department.

The Canadian Y.M.C.A. within the Corps is administered as a Department of Canadian Corps Headquarters, and the Senior Officer reports to the D.A. and Q.M.G. through the usual channels.

From the Y.M.C.A. point of view the Senior Officer is advised by an Executive Committee composed of the departmental heads and the senior officers of Divisions.

The Senior Officer also reports to the Chief Supervisor, Canadian Y.M.C.A., London, and through him is responsible to the National Council, Y.M.C.A., Toronto.

The Y.M.C.A. is not a Church or sect, but acts on behalf of all the Churches in Canada in providing comfort, entertainment, and inspiration for the troops. In carrying out this programme the work falls into five well-defined departments:—1. Business. 2. Athletics. 3. Entertainment. 4. Educational. 5. Religious. The Y.M.C.A. does not claim to exercise exclusive control in any of these departments, but acts rather as a supplementary agency in organising and promoting the voluntary activities of the troops.

The Canadian Y.M.C.A. secures its financial support from three sources:—1. Government assistance through the maintenance, pay, and allowances of personnel. 2. Public subscription. 3. Canteen profits. This income has increased very rapidly since the beginning of the War, and the total amount received has been expended on service to the troops, with the exception of the funds now being used as capital for the support of canteen operations. As soon as this service is reduced or eliminated the amount so employed will also be expended in general service to the troops.

The Canadian Corps Reinforcement Camp.—The Canadian Corps Reinforcement Camp was organised in order to provide a Department directly under the Corps Commander which would be responsible for getting reinforcements to Units without delay. A certain percentage of reinforcements for the Corps is always kept at the Canadian Corps Reinforcement Camp for immediate despatch to the Corps should they be required.

The organisation is into Wings, and these are:

- 1 Wing to each Division.
- 1 Wing dealing with Artillery.
- 1 Wing dealing with Engineers.
- 1 Wing dealing with Machine Guns.

The Wings were given an Establishment of administrative and instructional personnel.

The Wings are mostly near the Base, and a Staging Camp was opened near Corps Headquarters at which the reinforcements rest on their way to join their Divisions.

APPENDIX I.

COMPOSITION OF A CANADIAN DIVISION.

A Major-General in command.

Four Infantry Brigades, each consisting of:-

A Brigadier-General.

A Headquarters.

4 Battalions.

1 Light Trench Mortar Battery.

Divisional Troops, consisting of:-

The Divisional Headquarters.

Headquarters Divisional Artillery.

Two Brigades R.F.A., each consisting of:

3 six-gun batteries, 18 pdrs.

1 six-gun battery, 4.5 in. Howitzer.

Two Medium Trench Mortar Batteries.

One Heavy Trench Mortar Battery.

Divisional Ammunition Column.

A Canadian Engineer Brigade, consisting of:

A Headquarters.

3 Battalions, C.E.

1 Bridging Transport Section, C.E.

Divisional Signal Company.

One Machine Gun Battalion.

Divisional Employment Company.

Divisional Train.

Three Field Ambulances.

Mobile Veterinary Section.

APPENDIX II.

CORPS TROOPS AS ON NOVEMBER 11, 1918.

Canadian Corps Headquarters. The Canadian Light Horse. One Squadron R.N.W.M.P. Canadian Corps Cyclist Battalion. Canadian Corps Heavy Artillery. 5th Canadian Divisional Artillery. 8th Army Brigade C.F.A. *" E" Battery Canadian Anti-Aircraft. C.R.E. Corps Troops Headquarters— 1st, 2nd, 3rd, 4th and 5th Army Troops Companies, C.E. Pontoon Bridging Company, C.E. 1st and 2nd Tramway Companies, C.E. *Anti-Aircraft Searchlight Company, C.E. Canadian Corps Signal Company. 1st and 2nd Canadian Motor Machine Gun Brigades. 1st Canadian Divisional Mechanical Transport Company. 2nd 3rd 4th Canadian Corps Troops Mechanical Transport Company. Canadian Motor Machine Gun Mechanical Transport Company. Canadian Engineers Mechanical Transport Company. 8th Army Brigade C.F.A. Park Section. †Canadian Corps Siege Park. 5th Canadian Field Ambulance. *1st Canadian Casualty Clearing Station. 1st, 2nd, 4th and 5th Canadian Sanitary Sections. Canadian Corps Dental Laboratory. 8th Canadian Ordnance Mobile Workshop (medium). (light). 8th (light). 26th ,, Canadian Corps Survey Section. Canadian Corps Military Police. 5th Canadian Area Employment Company.

Canadian Corps Veterinary Evacuating Station.

*Canadian Works Group Headquarters—

1st, 2nd, 3rd and 4th Canadian Infantry Works Companies. 6th, 7th, 8th and 9th Canadian Area Employment Companies.

Canadian Corps Labour Reinforcement Pool.

Canadian Corps Salvage Section. Canadian Corps Burial Section.

*Normally administered by Army Headquarters. †All Imperial personnel.

Note.—There were other troops attached to the Canadian Corps, but they were not Canadian Units.

APPENDIX II (b).

CANADIAN CORPS HEAVY ARTILLERY.

Headquarters.

1st Brigade, C.G.A.

Headquarters.

1st Canadian Siege Battery, 9.2 in. Howitzer.

3rd ,, ,, ,, 6 in. ,,
7th ,, ,, ,, 6 in. ,,
9th ,, ,, ,, 6 in. ,,

2nd Brigade, C.G.A.

Headquarters.

1st Canadian Heavy Battery, 60 pdr. 2nd 60-pdr.

2nd ,, ,, ,, 60-pdr.
2nd ,, Siege ,, 6 in. Howitzer.
4th ,, ,, ,, 8 in. ,,
5th ,, ,, ,, 66 in. ,,
6th ,, ,, ,, 6 in. ,,

3rd Brigade, C.G.A.—

Headquarters.

8th Canadian Siege Battery, 8 in. Howitzer.

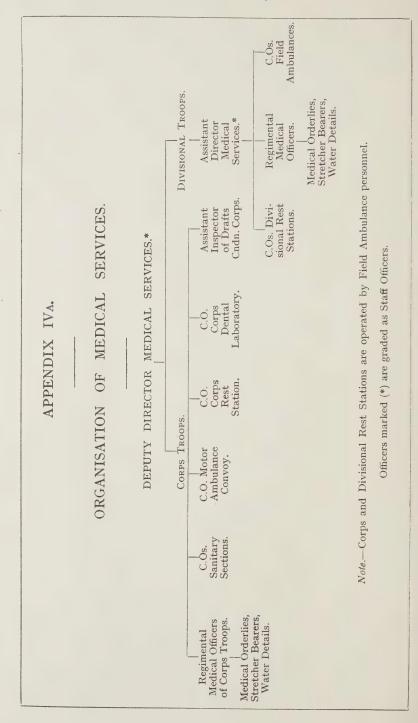
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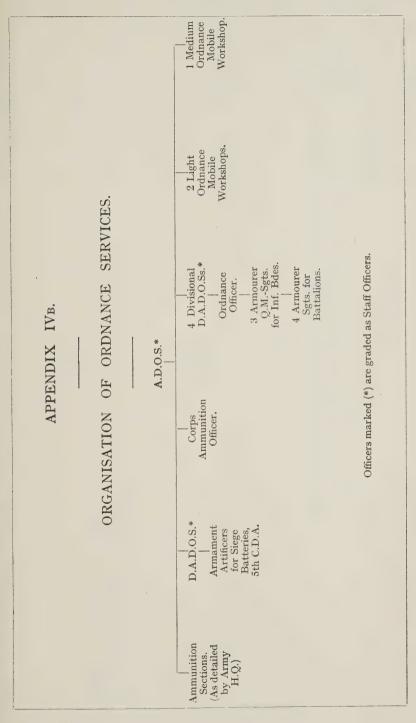
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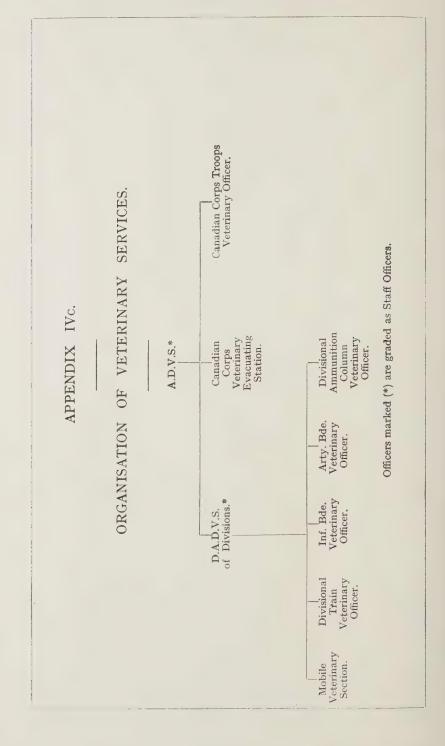
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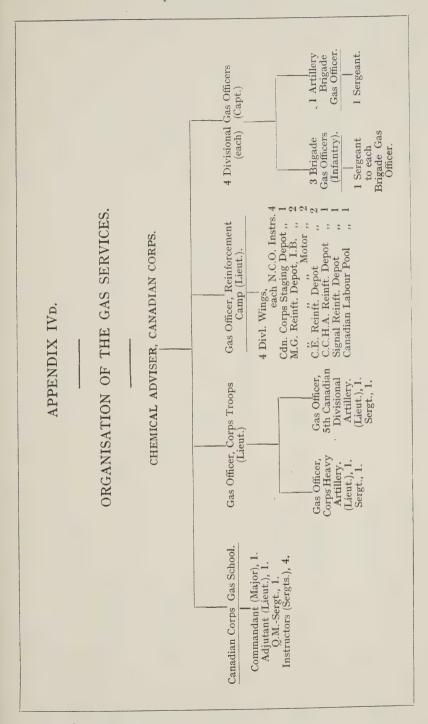
APPENDIX III.—SYNOPSIS OF SOME ESTABLISHMENTS.

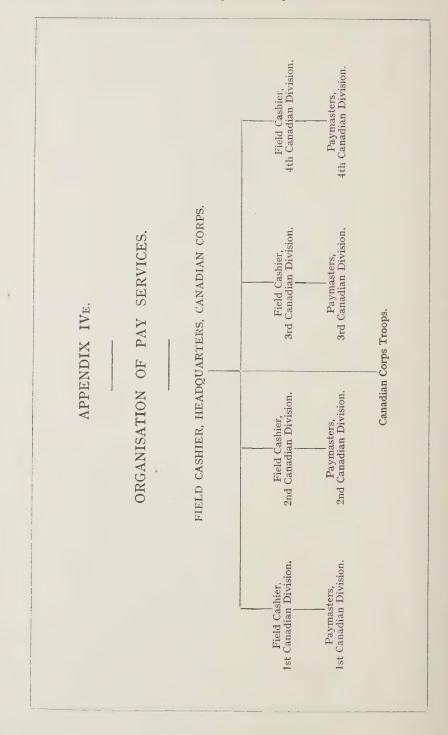
		A headquarters and 4 companies.	96 machine guns organised as 3 companies, each of 4 batteries of 8 guns.	Organised as 3 sections, each of 2 guns.	Organised as 3 sections, each of 2 guns.	Lorry drawn. 6 caterpillars	6 caterpillars	3 sections, each of 2	mortars	o mortars	8 tool carts	6 pontoon and 3 trestle wagons	4 tool carts 4 nontoon wagons				3 horse and 7 motor	ambutances 1 box car 1 ambutance	1 workshop lorry
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	G.S. Wagons.	2					7	52		Management of the Control of the Con	6	-		131	1 5	9I	9		
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	Lorries.	The same of the sa		.	1	24	49			18	C1 00)	617	4	92	1		11	4
	Amm. Limbers.			9	9		9	1			Name of the last o		1		1		-		
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;	Horses.	54		165	169	1	934	665		126	136	71	26	363	3 1	499	15	4	1
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		Infantry Battn	Machine Gun Battn	18-pdr. Battery	4.5 in. How. Battery	6 in. How. Battery	8 in. How. Battery 9.2 in. How. Battery	60-pdr. Battery Divl. Amm. Column	Med. 1.M. Dattely	Heavy T.M. Battery	Divl. Signal Coy.	Engineer Batth Bridging Transport Sec.	Army Troops Coy	Tramway Coy.	Divisional M.T. Cov	Cdn. Light Horse	Cyclist Battn.	Sanitary Section	Ordnance Mob. Work- shop (light)





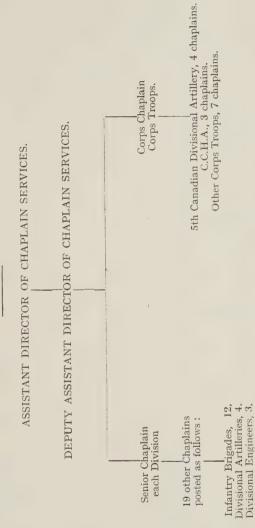


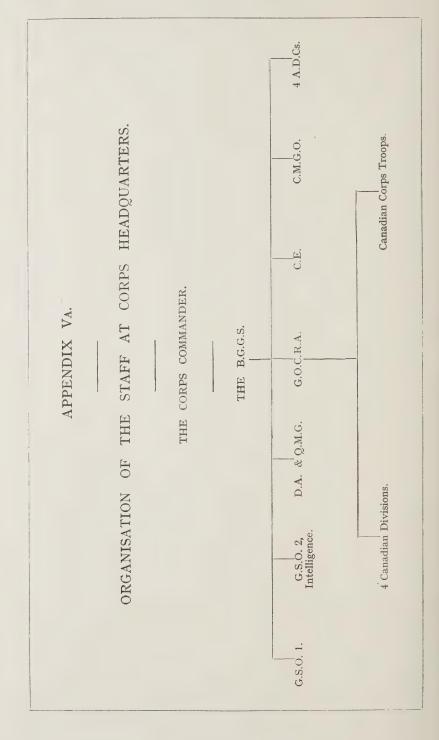


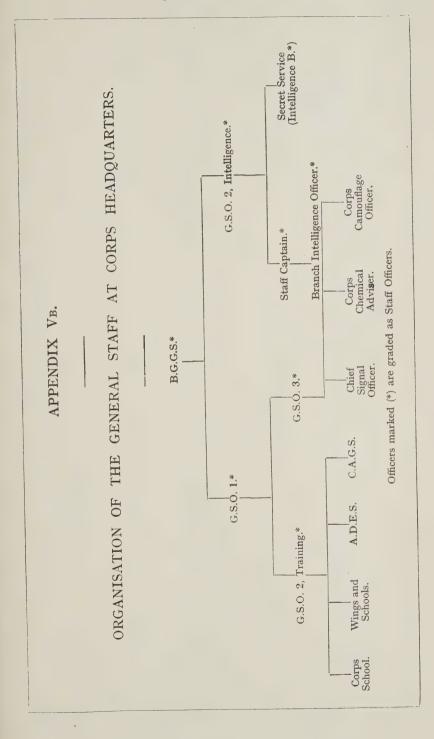


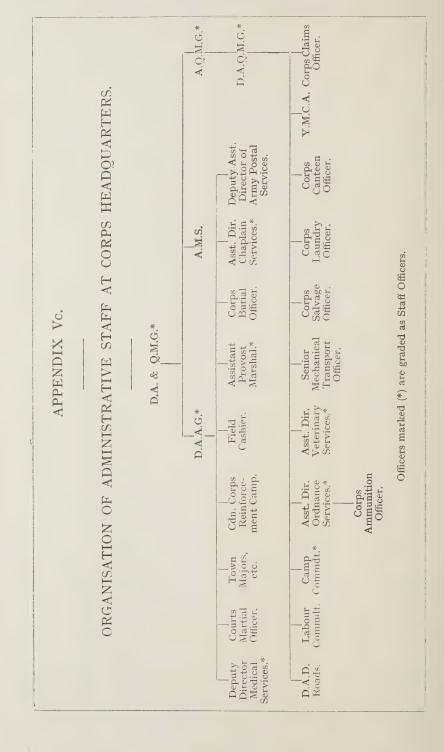
APPENDIX IVF.

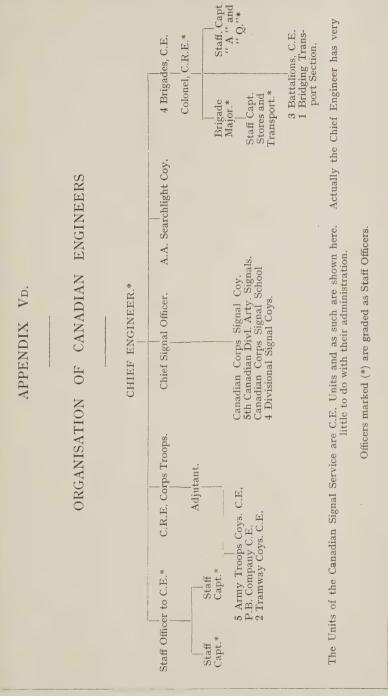
ORGANISATION OF CHAPLAIN SERVICES.

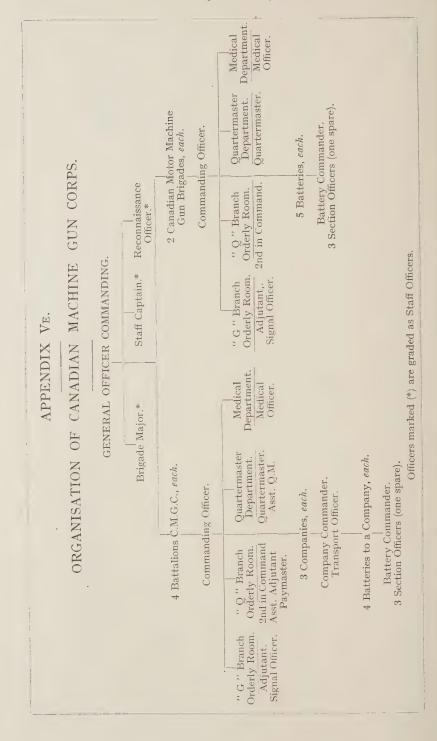


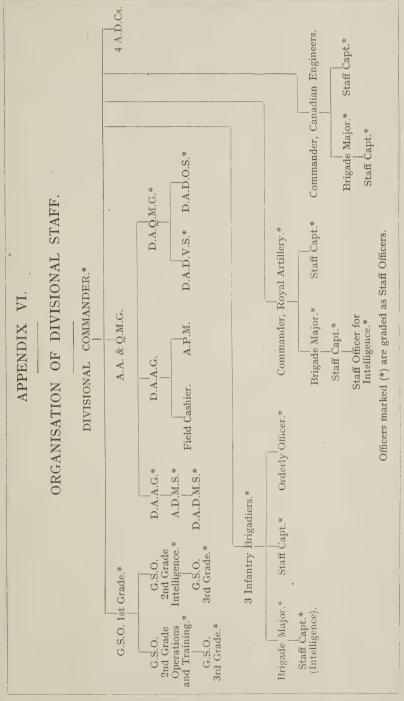












APPENDIX VII.

TRANSLATION OF INITIALS.

,	RANSLATION OF INITIALS.					
" A " Branch	The Adjutant General's Branch of the Staff.					
A.A	Anti-Aircraft.					
A.A. and Q.M.G.	Assistant Adjutant and Quartermaster					
	General.					
A.C. and R	Appointments, Commissions and Rewards.					
A.D.C.	Aide-de-Camp.					
A.D.E.S	Assistant Director of Educational Services.					
A.D.M.S	Assistant Director of Medical Services.					
A. D.O.S	Assistant Director of Ordnance Services.					
A.D.V.S	Assistant Director of Veterinary Services.					
A.G	Adjutant General.					
A.P.M	Assistant Provost Marshal.					
A.Q.M.G.	Assistant Quartermaster General.					
B.G.G.S	Brigadier General of General Staff.					
D.A.A.G	Deputy Assistant Adjutant General.					
D.A.D.A.P.S.	Deputy Assistant Director Army Postal					
	Service.					
D.A.D.C.S	Deputy Assistant Director of Chaplain					
	Services.					
D.A.D.M.S	Deputy Assistant Director of Medical					
	Services.					
D.A.D.O.S	Deputy Assistant Director of Ordnance					
	Services.					
D.A.D.R	Deputy Assistant Director of Roads.					
D.A.D.V.S	Deputy Assistant Director of Veterinary					
	Services.					
D.A. and Q.M.G.	Deputy Adjutant and Quartermaster General.					
D.D.M.S	Deputy Director of Medical Services.					
C.A.G.S	Canadian Army Gymnastic Staff.					
C.A.P.C	Canadian Army Pay Corps.					
C.A.P.S.	Canadian Army Pay Services.					
C.A.S.C.	Canadian Army Service Corps.					
C.C.H.A	Canadian Corps Heavy Artillery.					
C.C.R.C.	Canadian Corps Reinforcement Camp.					
C.D.A	Canadian Divisional Artillery.					
C.E	Chief Engineer.					
	Canadian Engineers.					
C.F.A	Canadian Field Artillery.					
C.M.G.C.	Canadian Machine Gun Corps.					
C.M.G.O	Corps Machine Gun Officer.					
C.M.M.G. Brigad	e Canadian Motor Machine Gun Brigade.					

C.O. . . . Commanding Officer.
C.O.C. . . Canadian Ordnance Corps.
C.R.A. . . Commanding Royal Artillery.
C.R.E. . . Commanding Royal Engineers.
G. . . . General Staff Branch of the Staff.

G.H.Q. .. General Headquarters.

G.O.C. .. General Officer Commanding.

G.O.C. R.A. . . General Officer Commanding Royal Artillery. G.S.O. 1, 2, or 3 General Staff Officer, 1st, 2nd, or 3rd Grade.

H.O. .. Headquarters.

I. Intelligence Branch of the General Staff.
I. (b) .. . Secret Service Branch of the above.

M.O. .. Medical Officer.

N.C.O. .. Non-Commissioned Officer.

Q.M. .. Quartermaster.

O.M.G. .. Quartermaster General.

O. . . Operations Branch of the General Staff.
O.R. . Other Ranks as distinct from Officers.
R.N.W.M.P. . Royal North West Mounted Police.
Y.M.C.A. . Young Mens' Christian Association.

APPENDIX VIII.

ORGANISATION, ADMINISTRATION AND FUNCTIONS OF DEPUTY ASSISTANT ADJUTANT-GENERAL'S BRANCH CANADIAN CORPS HEADQUARTERS.

ORGANISATION.

The Branch of the D.A.A.G. is composed of:—

A. Officers.

D.A.A.G. Major F. W. Miller, M.C. Staff Learner (Attached) .. Major A. McMillan, D.S.O. Court Martial Officer (Attached) Major E. N. Armour.

Total Officers, 3.

B. Other Ranks.

- 1 Superintending Clerk (Warrant Officer).
- 1 Staff Sergeant.
- 3 Sergeants.
- 7 Privates.
- 4 Orderlies.
- 1 Sergeant Typewriter Mechanic.

Total Other Ranks, 17.

ADMINISTRATION.

The Branch is primarily administered by the D.A.A.G., subject to the direction and control of the D.A. and Q.M.G., Canadian Corps.

The relationship of the Branch to the other Branches in the Corps, and to the other Services generally and the channels of communication between them, is shown by the diagram, Appendix I., attached hereto.

But it must be understood that, while this diagram indicates the system of organisation, mobility is always assured, and the system is sufficiently elastic to meet all the varying conditions which may arise.

The organisation aims at a due subdivision of labour and decentralisation of responsibility among subordinates, each individual being given duties which he can perform adequately; at the same time, the central control and co-ordination of subordinate parts for the attainment of the common objective is assured.

FUNCTIONS.

The work of the Branch of the D.A.A.G. comprises:-

Discipline.—Including the discipline of Units, Officers, other ranks, Courts of Enquiry, Boards, Courts Martial, and Suspended Sentences.

There is no subject of more importance to the Army than that of discipline. It is the means by which the Army is held together and carries on. Without discipline all military bodies become mobs, and worse than useless.

It is a particular function of the D.A.A.G. Branch to see to the maintenance of discipline throughout the Corps, and while the responsibility for the discipline of a Unit rests in the first instance on the Commanding Officer, supervised by the Brigade and Divisional Commanders, the general direction and supervision rests with the D.A.A.G.

To maintain discipline and award punishments for military offences, the Commanding Officer of the Unit has ample powers of summary punishment. For more serious cases the offender is sent for trial by a Field General Court Martial, which has plenary powers of punishment. For the trial of all serious, difficult or complicated cases the Court Martial Officer, a trained legal expert, attends. He records the evidence and advises the Court on all points of law and procedure.

But discipline enforced by punishment alone is a poor sort of discipline which will not stand any severe strain. What is aimed at is the high state of discipline which springs from a military system administered with impartiality and judgment so as to induce on all ranks a feeling of duty and the assurance that, while no offence will be passed over, no offender will be unjustly dealt with.

In order to give men who have committed serious military offences through exhaustion, temporary loss of nerve, or other causes, an opportunity of redeeming their character and earning the remission of their sentences the Army (Suspension of Sentence) Act was passed. This Act provides that when any soldier is sentenced by a Court Martial to penal servitude or imprisonment he will not be committed to prison, but will be kept under arrest until the directions of the "Superior Military Authority," that is, the Commander-in-Chief or the Army Commander, are received. The Act does not affect the rights of confirming and reviewing authorities to commute or remit the sentence of the Court Martial, but where such authorities

consider that sentences of penal servitude or imprisonment should be carried out they state this definitely in a separate minute when forwarding the proceedings giving their recommendations. When a sentence has been suspended by a "Superior Military Authority," the Unit concerned is at once notified by telegram, stating the date of suspension, and the soldier under sentence is released from arrest. He thereupon becomes free from any disability in respect of the sentence which has been suspended.

Where a sentence has been suspended the case may at any time, and must at intervals of not more than three months, be reconsidered by a "Competent Military Authority," who is usually the Brigade Commander or other officer holding an equivalent or superior command. If on the reconsideration of the sentence it appears to the "Competent Military Authority" that the conduct of the soldier has been such as to justify a remission of the sentence he shall remit it. If he does not think the soldier's conduct deserves the remission of the sentence, he may bring it forward for reconsideration at a later date. If, on the other hand, the soldier's conduct justifies it, the "Superior Military Authority" may order that the soldier be committed to prison to serve the sentence.

The working of the Act has been most satisfactory. It has resulted in the prevention of crimes committed with a view of evading duty. At the same time, the Act enables clemency to be extended to soldiers who have been guilty of grave military offences, and gives them the opportunity during the period of the suspension of their sentences of expiating their offences by a period of good conduct or by gallant or meritorious acts.

Military Law.—The administration of Military Law and the compilation of regulations relating thereto, rulings and complaints.

The D.A.A.G. is responsible that Military Law is correctly and uniformly administered throughout the Corps, and in accordance with the King's Regulations and the orders and rulings of higher authority from time to time issued.

He must also see that all amendments to the Army Act or other statutes relating to the Army, as well as any changes in the King's Regulations, Rules of Procedure, etc., are immediately brought to the notice of lower formations. The compilation of all regulations and rulings of higher authority for reference and promulgation is one of the important duties of his Branch.

He also examines and advises on all complaints of officers and other ranks before forwarding them to higher authority, and is responsible that any complaints meriting redress are given effect to immediately.

Executive Duties connected with the Appointment of Officers. (other than Staff and Administrative Appointments).—Personal services, special appointments, such as Town Majors, Area Commandants, etc., transfers, postings, employments, exchanges, leave and resignations.

The appointment of Staff and Administrative Officers and the promotion of all officers is handled by the Assistant Military Secretary.

Questions relating to the Supply of Military Personnel to the Army, including strengths, reinforcements, labour, employment, and man power.

During the year 1918 the demand for reinforcements was extremely heavy on account of the continued activity at the front.

At the commencement of the enemy's Offensive all Battalions of the Canadian Corps were brought up to full strength, and the Canadian Corps Reinforcement Camp at Aubin St. Vaast was filled with reinforcements.

In order to facilitate the despatch of reinforcements to Units a Branch of the C.C.R.C. (known as the Advanced C.C.R.C.) was formed in the Corps Area, and from this Advanced C.C.R.C. reinforcements could be sent to Units on very short notice and with very little delay.

When the Canadian Corps entered the Line to participate in the Battle of Amiens, all Units were up to strength, and from 6,000 to 8,000 reinforcements were in the immediate vicinity, ready to be despatched to the different Units engaged on the shortest notice.

In order to be better able to follow up every success gained, the experiment of reinforcing Infantry Units actually in action, without withdrawing them from the Line, was put into effect for the first time in warfare and proved successful, as Battalions withdrew from the fight at practically the same strength as they entered.

As the demands for reinforcements became more acute, it was decided that reinforcements in England with only 10

weeks' training would be sent to France instead of waiting to complete the usual 14 weeks. This, however, proved unsatisfactory, and was discontinued.

As the Corps advanced so the advanced portion of the C.C.R.C. moved forward, and in order to obviate reinforcements arriving at Units in an exhausted condition, Staging Camps were organised between the Advanced C.C.R.C. and Units so that the troops could be rested and receive proper meals before joining their Units.

Interior Economy, including establishments and organisations.

1. It is apparent that every Unit in the Army must have an Establishment, that is to say, a definite limitation of the personnel, animals, and material which comprises it.

It is only by means of establishments that the fighting or effective strengths of Units can be ascertained, and a direct control maintained over supplies of personnel, animals, ammunition and equipment. One of the great factors, however, which conduced to make the Canadian Corps such an effective fighting force, was the readiness at all times to discard establishments which had proved themselves unsuitable to changed conditions.

Alterations in establishments which were necessary to meet new conditions of warfare were made and approved, due regard being had to the interests of economy.

It has been a recognised principle in the Canadian Corps that organisation must not be allowed to become stereotyped.

The value of elasticity in the power of creating new organisations to meet new conditions was early recognised and was a decisive factor towards success.

2. Prior to 1918 the majority of Canadian Units with the Canadian Corps were organised on Imperial Establishments. These, to a certain extent, proved unsatisfactory, and early in the year steps were taken to revise the existing establishments. A number of new establishments were submitted and approved, and a large number of the existing establishments were modified to meet the requirements of the Corps.

Among the former the following may be mentioned:—

Canadian Machine Gun Corps.

Canadian Engineers.

Canadian Machine Gun Corps Mechanical Transport Company.

Canadian Engineers Mechanical Transport Company. Divisional Mechanical Transport Companies.

Canadian Corps Troops Mechanical Transport Company.

Y.M.C.A. and Chaplain Services.

Labour.

Prior to reorganisation the Machine Gun organisation of the Corps consisted of one Machine Gun Company per Division and the following Motor Machine Gun Brigades:—

1st Canadian Motor Machine Gun Brigade. Yukon Motor Machine Gun Brigade. Eaton Motor Machine Gun Brigade. Borden Motor Machine Gun Brigade.

The Machine Gun Companies were disbanded, and in their place were substituted one Machine Gun Battalion per Division. Each Battalion consisted of three Machine Gun Companies. Likewise the Yukon, Eaton and Borden Motor Machine Gun Brigades were merged and known as the 2nd Canadian Motor Machine Gun Brigade.

The organisation of the Canadian Engineers did away with twelve Field Companies C.E., four Pioneer Battalions, and two Tunnelling Companies.

The present organisation of the Canadian Engineers consists of twelve Battalions C.E. (three to each Division, comprising an Engineer Brigade) and one Bridging Transport Section with each Division.

The reorganisation of the Machine Gun Corps and the Engineers necessitated better arrangements being made for transportation, and to attain this the Machine Gun Mechanical Transport Company and the Engineer Mechanical Transport Company were organised. At the same time the whole of the Mechanical Transport of the Canadian Corps was reorganised, each Division and Corps Troops having one complete Mechanical Transport Company.

The Spiritual and Recreational welfare of the troops also received consideration. The existing organisation of the Y.M.C.A. and Chaplain Services were found to be inadequate, and resulted in the formation of the 9th Canadian Area Employment Company. This Company found the personnel for duty with the Y.M.C.A. and Chaplain Services, and were allowed a certain number of N.C.Os. for the more responsible positions in these two organisations. When personnel were

not needed by either of these two organisations they were returned to the 9th Area Employment Company to be used on other duties, but they were always available to be returned as occasion required.

During the year the two Labour Battalions were merged into four Canadian Infantry Works Companies and one Group Headquarters, the entire organisation being administered by the Labour Commandant, who had his headquarters at Corps Headquarters.

Practically all establishments in use with the Canadian Corps were amended during the year to meet existing conditions. The establishment of Canadian Corps Headquarters was given careful consideration and various amendments were made. In view of the increasing volume of work handled by the various Departments of Corps Headquarters it was found necessary to increase the establishment for clerical labour, thus enabling clerks to draw a higher rate of pay than would otherwise have been possible.

The establishments of Division and Brigade Headquarters were also amended.

The establishment of Canadian Infantry Battalions was increased to 966 other ranks, and in addition an over-posting of 100 other ranks was approved, making a total strength of 1,066 other ranks.

Personal Services of other ranks, including postings, transfers, promotions, summary reductions, clerks, courses, passes, permits, and leave.

The Corps has always enjoyed a generous allotment of leave for all ranks, a privilege which has contributed in a great measure to physical fitness and morale.

Personnel are eligible for ordinary 14 days' leave to the United Kingdom every three months. The allotment, however, is dependent upon train and boat accommodation, and naturally the military situation. It is not possible, therefore, to grant leave so frequently.

Leave privileges are also extended to France, Belgium, and Italy.

In special cases where the circumstances warrant it leave to Canada is granted for varying periods, and special leave to the United Kingdom is allowed for a period exceeding the 14 days. A leave warrant to the United Kingdom includes free transportation from the Unit in the Field to the applicant's destination. This arrangement is not applicable to leave on the Continent.

A special train and boat service is operated for leave personnel only. The leave train in France runs between the Divisional Railhead and the Base Port. It is aimed to have the boat leave with as little delay as possible after the arrival of the train. Boat sailings, however, are dependent upon tides and other factors, and it frequently occurs that leave personnel are delayed at the Port in France. To provide for this, Rest Camps have been established, where sleeping accommodation and food are obtainable. A special leave train meets the boat at the Port in England and conveys the personnel to London, from where the journey is continued by regular trains.

All other ranks receive an advance of pay prior to proceeding on leave.

Pay of Officers and other ranks, including separation allowance and gratuities.

Enlistments and Discharges.

Demobilisation.—Demobilisation implies the depletion of a military force, and the return to civil life of the personnel composing it.

An Army is not ordinarily organised for self-disintegration, and consequently, marvellous as is the existing machinery and infinitely various the functions that it enables it to perform, it must be altered and supplemented in many directions for the business of demobilisation.

Plans must be prepared and special organisations created to deal with the various stages through which the Units must pass.

Arrangements must be made for the collection and disposal of arms, equipment, transport and animals.

Thus an entirely new set of Army Forms have been brought into use in order to carry out the documentation of personnel, etc. Special guards and working parties have been provided to handle the equipment, etc. Certain officers and other ranks have been specifically told off in each Unit to deal with the necessary preparation of documents and dispersal schemes.

Le Havre was set aside as a Port of Embarkation for the Canadian Forces in France.

At this Port a Camp, known as the Canadian Embarkation Camp, has been created with a capacity of approximately 6,000 troops, and a staff capable of carrying out the necessary administrative functions.

The Units are moved by rail from their present area to the Embarkation Camp. Ordinarily the movement of troops from the Port of Embarkation to England is at the rate of 1,000 soldiers per day.

A Concentration Camp known as the Canadian Corps Camp has been organised at Bramshott, England, with a capacity of approximately the strength of a Division.

On arrival in England, Units proceed by rail to this Camp, and there they are finally completed with respect to documentation, last pay certificates, etc. All ranks are given eight days' leave of absence before sailing for Canada.

The Dominion of Canada has been divided into 21 Dispersal Areas, each with a Dispersal Station.

The Port of Halifax has been selected as the Port of Disembarkation, and from there the Units proceed to their respective Dispersal Areas by specially organised rail service. All personnel are conveyed to their homes at public expense.

Applications and Enquiries of all kinds concerning the troops.

Spiritual Welfare of the Troops.—The work of the Chaplain Services covers a considerable area. In addition to the spiritual and moral side of the work much has been done in the interest of the Troops to provide for their social requirements. In this latter direction a great deal has been done for the welfare of the troops in providing canteens, reading rooms, games, etc.

Too much cannot be said also of the services of the Y.M.C.A. in the interests of the troops with respect to the supplying of sporting material, provision of recreation rooms, and entertainments.

Medical Services, including Sanitation.—This subject is too detailed and lengthy for a report of this nature, so it has been dealt with in a separate report by the Deputy Director Medical Services.

Casualties and Invaliding.—This is the subject of detailed regulations, which are attached as Appendix II. herewith.

Police Measures and A.P.Ms.—The principal functions of the Provost Branch, under the direction of the Assistant Provost Marshal, are as follows:—

The prevention and detection of crime.

The maintenance of order under all circumstances.

The enforcing of regulations.

The arrest of offenders.

The regulating of road traffic.

The collection of stragglers.

The custody of prisoners of war.

The control of civilian circulation.

The surveillance of persons suspected of espionage (in consultation with the Intelligence Branch).

The selection of personnel for Provost Service is a matter of great importance, even more so than in the case of policemen in civil life. The Military Police must be tactful, intelligent, and determined.

Personnel supplied to the Provost Branch are as a rule green men drawn from the Units, and require to be thoroughly trained and master the existing regulations before they become efficient in the duties which they undertake.

Prisoners of War, including detention, provision and disposal.

As prisoners of war furnish valuable and first-hand information regarding the enemy, the condition of his forces, and his intentions, the prompt collection of all prisoners of war is of first importance.

The arrangements regarding prisoners of war must necessarily vary according to circumstances, but as a general rule the following is the usual procedure adopted. When an attack is to be carried out Divisions arrange temporary Cages for the reception of prisoners, situated at convenient locations, as close behind the firing line as is practicable. To these Cages the prisoners collected by Brigades are sent. A Corps Advanced Cage is established in rear thereof to collect the evacuations from the Divisional Cages. The Advanced Cage evacuates to the Rear Corps Cage, which is situated between Corps and Army Headquarters, and where all Corps prisoners are detained until they are turned over to the Army for disposal.

All prisoners of war are subjected to careful search, interrogation, and examination by specially trained Officers under the control and direction of the General Staff, and information thus

gained is immediately available for use. When prisoners reach the Advanced Corps Cage they are sorted, their Units are identified, and more particular information obtained, and so on till the process is completed.

During this process the prisoners have to be provisioned and their wounded given medical attention. When it is considered that during the first 24 hours of the battle of Amiens between 6,000 and 7,000 prisoners of war passed through the Advanced Corps Cage some idea of the work and administration involved can be had.

Burials and Cemeteries.—The responsibility for the selection of sites for burial ground for British soldiers, and for the control and supervision of cemeteries, rests on the Director of Graves Registration and Enquiries, who works under the Adjutant General, General Headquarters.

A Burial Officer is appointed for Corps Headquarters and one for each Division, whose duties comprise the general supervision of burials and cemeteries in their respective areas.

Whenever an interment is made the Chaplain who conducts the ceremony must ensure :—

- (a) That the report on the prescribed form is completed in triplicate, and forwarded to (i.) The Director of Graves Registration and Enquiries, War Office; (ii.) The D.A.D.G.R. and E. of the Army in which the Corps is serving; (iii.) The D.A.G., G.H.Q., 3rd Echelon. The report referred to contains full particulars of the deceased, i.e., name, initials, regimental number, unit, date of death (wherever possible, and the map location of the grave.
- (b) That the grave is suitably marked in such a way as to ensure identification. For this purpose pegs are kept by a soldier in charge of all authorised cemeteries. Full particulars of the deceased as mentioned in (a) are entered on the labels attached to the peg. At the earliest opportunity a wooden cross bearing the same particulars is erected. In cases where the erection of crosses is difficult, or has to be delayed, a record written with hard black pencil is in addition to be placed in a bottle which is half buried (neck downward) at the foot of the grave.

Plans are in preparation for the erection of a specially designed headstone over the grave of each Canadian soldier.

It has been urged that arrangements be made for the exhumation of all bodies of Canadian soldiers buried in Germany for reinterment in Allied soil, and it is hoped that this request will receive approval in due course. The greatest possible care is taken to ensure that the bodies of all Canadian soldiers killed in action or dying on service are buried according to the rites of their religious denominations.

Ceremonials and Bands.—Preparation of orders, reports, despatches, correspondence, and diaries relative to the above.

CASUALTIES.

1. Returns.—Two separate Casualty Returns will be sent in.

"A"—A return of estimated casualties only, to be used during heavy fighting.

"B"—A return of Official casualties accurately compiled.

"A" ESTIMATED CASUALTY RETURNS.

(i) Divisions in which any Battalion (or Regiment) has suffered 50 or more casualties will wire the number by Battalions (or Regiments) not later than 8.00 p.m. daily to A.G., G.H.Q., repeated to A.H.Q. (A) and Canadian Corps "A."

These will be repeated.

For Canadian Troops to A.A.G., Canadian Section, 3rd Echelon.

For British Troops to D.A.G., 3rd Echelon.

For American Troops to Headquarters, 2nd American Corps.

If further heavy casualties have occurred during the night another wire should be sent next morning as soon as the total approximate numbers per Battalion (or Regiment) can be estimated, but no wire is to be sent unless at least 50 more casualties have occurred in any one Battalion (or Regiment) since the previous wire.

- (ii) The casualties will be reported by "phases"; the date of commencing and closing each phase will be notified from this office. The duration of each phase will vary according to the fighting, and the number of casualties suffered, but normally will be about three weeks.
- (iii) Each wire will include the numbers already reported since the commencement of the phase in the previous wire, and will begin with the following words: "Total estimated casualties from" (here insert commencement of phase). The word "additional" will on no account be used in any wire.
- (iv) When a Division is resting it will take the opportunity to verify the casualties it has reported for the current phase, and

on going into action for the second or third time will start reporting from the corrected figures, and not from zero, unless in the meantime a new phase has been commenced.

- (v) Approximate casualty wires are only to be sent in for Machine Guns, Cavalry, and Infantry, and should not include R.A. and R.E.
- (vi) When Divisions are withdrawn from the line they will take the first possible opportunity of reporting by wire to the A.G., G.H.Q., the strength in officers and other ranks of Infantry Battalions, Pioneer Battalions (British), and Machine Gun Battalions. This will be repeated—

For Canadian Troops to A.H.Q. "A'" Canadian Corps "A'" and A.A.G., Canadian Section, 3rd Echelon.

For British Troops to A.H.Q. and D.A.G., 3rd Echelon.

- (vii) The following code will be used for each Cavalry and Infantry Division in telegraphing casualties.
 - (a) Regiments and Battalions will be represented by the alphabetical letters in order of succession as shown in the "Order of Battle" ("I," "J" and "O" being omitted), i.e.,

A British Infantry Division will be represented by the following Battalions—

A	D	G	P
В	E	$_{\mathrm{H}}$	
С	\mathbf{F}	K	

A Cavalry Division will be represented by the following Regiments

A D G B E H

C F K L (for Jodhpur Lancers.

The codes for Canadian Units have been published under D.A.G.S./4578/3-C of 8-7-18.

- (b) If a Battalion (or Regiment) has not had an increase of 50 casualties since the previous wire, it will not be referred to in the next wire.
- (c) The words "Officers" and "Other Ranks" are not to be employed in these telegrams, numbers simply being used in each case separated by the word "and." If there are no officer casualties the word "Nil" must be used; "aaa," representing full stop, will not be used.

(viii) The following are two examples:-

1st example:—

A.G., G.H.Q.

Total estimated casualties from March 10, A 2 and 50 C British 1 and Nil Indian 1 and 57 F. Indian Nil and 51 1. British 2 and Nil Indian 3 and 200 Xa 1 and 10 adsd A.G. G.H.Q. repeated D.A.G. 3rd Echelon G.H.Q. A.H.Q.A. and Canadian Corps A. 4th Cavalry Division.

2nd example:-

A.G., G.H.Q.

Total estimated casualties from March 10, B 5 and 31 C 1 and 50 E Nil and 61 F 3 and 200 K 1 and 58 XCD 1 and 25 Addsd. A.G. G.H.Q. repeated A.A.G. Canadian Section 3rd Echelon and A.H.Q. "A" and Cdn. Corps "A."

4th Canadian Division.

These mean that these two Divisions have had the following total casualties from March 10 to the date the wires were despatched:—

4th Cavalry Division.

17th Lancers	,	• •		2 Offi	cers a	nd	5 0 ot	her ra	nks.
19th ,,									
British				1	,,	,,	Nil	,,	,,
Indian			• •6	1	,,	,,	57	"	,,
38th Horse—									
British				Nil	,,	7.3	Nil);	*;
Indian				Nil	33	39	51	2.9	,,
Jodhpur Lancers—									
British				2	,,	,,	Nil	,,	,,
Indian			• •	3	,,	,,	2	,,	,,
Machine	Gun S	quadro	n	1	"	,,	10	,,	"

4th Canadian Division.

?	Canadian	Inf. Batta	lion	 5 Off	icers a	and	315	other	ranks.
?	,,	22	,,	 1	,,	,,	5 0	,,	22
?	,,	,,	,,	 Nil	,,	,,	61	2)	,,
?	,,	23	7.2	 3	,,	,,	200	,,	23
5	23		,,	 1	,,	,,	58	,,	,,
5	Battalion,	C.M.G.C.		 1	,,	9.9	25	,,,	,,
	(0.10)								37.0

(642)

(ix) **Machine Gun Battalions.**—Whenever the total casualties suffered by a Machine Gun Battalion exceed 25 all ranks an estimated casualty wire will be sent by the Division concerned as provided above for Infantry.

Machine Gun Battalions in reporting casualties will forward a new report whenever unreported casualties amount to 25 or over, these being reported to the nearest 25.

In the case of a decrease in estimated casualties amounting to 25 or over it will be reported to the nearest 25.

Canadian Machine Gun Battalions will show the classification of casualties in C.M.G. Divisions in a D.R.L.S. message addressed to Canadian Corps "A" only.

(x) Motor Machine Gun Brigades.—Whenever the estimated casualties in a Motor Machine Gun Brigade exceed 20 all ranks an estimated casualty wire will be sent to Canadian Corps "A" only.

Motor Machine Gun Brigades will show in estimated casualty wires the classification of casualties in the cases of gunners, drivers, and signallers; other specialists will be shown as "other ranks."

The classification of these "other ranks" will be shown in a D.R.L.S. message referring to the casualty wire in which they were reported. The D.R.L.S. message will be addressed to Canadian Corps "A" only.

2. "B" Official Casualty Returns.

- (i) Official casualties will be reported as follows:—
- (a) By Divisional Artilleries by wire to the Division under which they are at the time, repeated to Canadian Corps "A," made up to 12 noon, required by 8 p.m. daily. The figures shown in these wires will be included by the Divisions in their own official casualty return as called for in (c).

During heavy fighting a D.R.L.S. message referring to the casualty wire will be sent direct to Canadian Corps "A" by the Canadian Divisional Artilleries concerned showing the classification of the casualties as reported by the casualty wire.

(b) By Divisional Signals to the Division under which they are at the time, repeated to Canadian Corps "A." Made up to 12 noon, required by 8 p.m. daily. The figures shown in these wires will be included by the Division in their own official Casualty return as called for by (c).

(c) By *Divisions* including Divisional Artilleries and Signals by wire on attached pro forma to Army "A," repeated to Canadian Corps "A," made up to 12 noon, required by 8 a.m. next day by Army H.Q. and Canadian Corps Headquarters.

(d) By C.C.H.A. to Canadian Corps "A" and G.O.C.R.A.,

made up to 12 noon, required by 7 p.m. daily.

(f) By all Corps and Army Troops not included in above to Camp Commandant, Canadian Corps, by 7 p.m. daily. Camp Commandant will tabulate and forward by D.R.L.S. to Army "A" by 8 a.m. next day, repeating to Canadian Corps "A" by 8 a.m.

(ii) Casualties occurring in personnel of C.C.R.C. will be reported to C.C.R.C., repeated to Canadian Corps "A," and must

not be included in casualty wires or reports.

(iv) Whenever a battalion has lost 50 or more men missing any single day a footnote will be added to the daily casualty return, stating how many of them are thought to have been taken

prisoners by the enemy.

(v) Before the return is sent in, the names of officers must always be verified from the Army List, to ensure that the correct initials and spelling are given. If an officer's name is not in the Army List, or is wrongly spelt there, the fact will be stated in the report. The actual date of the casualty must invariably follow the name of the officer.

When casualties of regimental or General List Officers serving with Trench Mortar Batteries are reported, the Battalion from which they are detached will be shown, in addition to the Trench Mortar Battery on the strength of which they are serving, thus:—

Lieut. "X" 18th.....employed...... Trench

Mortar Battery; or,

Lieut. "X" General List, employed......Trench Mortar Battery.

- (vi) The casualties in any formation or unit detached temporarily from one Division to another will be reported by the Division to which such formation or unit is attached. This Division will repeat return "A" and return "B" to the Division from which the formation or unit has been detached.
- (vii) Casualties of officers and other ranks attached or belonging to Units of Army and Corps Troops will be reported by the Unit of Army or Corps Troops concerned in the usual manner, *i.e.*, through Divisions by such Units administered by Divisions to Corps Headquarters, by such Units administered direct by Corps, and to Army Headquarters by such Units administered direct by the Army.

(viii) Medical Units will be responsible for reporting deaths of all ranks under their charge.

3. Special Instructions.

- (i) Battle Casualties to Officers Commanding R.E. Units (not C.E. Units) will be reported by wire direct to the A.G., G.H.Q., by the "A" Staff concerned. All other casualties will be reported through the usual channels.
- (ii) If any General Officer, Staff Officer, or Commanding Officer is reported as a casualty, the fact will be at once reported to A.H.Q., and in the case of the two former only will be repeated to A.G., G.H.Q., except when heavy fighting is in progress; the report should contain a brief statement of how the casualty occurred.
- (iii) (a) All casualties caused by enemy weapons in use at the time as such, and all casualties caused by British or Allied weapons which are in action against the enemy, will be reported as "Battle Casualties."
- (b) The word "weapon" will be held to include Lethal Gas, Mustard Gas, Liquid Fire, High-tension Currents and enemy Barbed Wire, as well as all other instruments used in fighting.
- (c) In reporting "Battle Casualties" the terms "Killed in action," "Died of wounds," "Wounded," "Wounded at duty" or "Missing" only will be used, except in the case of shell shock and Lethal or Mustard Gas casualties, where the special nature of the casualty will be indicated thus:—
 - "Killed in Action (Gas)."
 - "Wounded (Gas)."
 - "Wounded (Shell Shock)."
- (d) No report of "Wounded (Shell Shock)" shall be made except on the authority of the Officer Commanding a Special Hospital in accordance with G.R.O. 2384, nor will a report of "Wounded (Gas)" be made except in accordance with G.R.Os. 3127 and 3128. (See Appendix "A.")
- (e) In cases where it is considered desirable to enquire into the conduct of an officer or man who is believed to have been taken prisoner by the enemy, and a Court of Enquiry is held for that purpose, the casualty will be reported as "Missing, believed Prisoner of War (Court of Enquiry case)." See para. 2 (b) S.S. 617, issued with G.R.O. 2884
- (f) A casualty from mine gas poisoning sustained by an officer or man in the course of his duty, and which is not in any way

due to neglect or disobedience of orders, will be reported as a "Battle Casualty."

- (g) A casualty arising from any other injury will be reported simply as "Injured," "Died of injuries," or "Killed aaa." (in the case of immediate death from injury). When, however, the injury is self-inflicted, it will in the first instance be reported as "Injured S.I.," "Died of Injuries S.I," or "Killed S.I." (in the case of immediate death from self-inflicted injury), until the case has been investigated and Army Form 3428 completed, when the injury will be definitely classified as "Wilful," "Negligent," "Without negligence," or "Accidental," as the case may be.
- (iii) (h) When an officer or other rank who is both "Wounded and Missing" and has been previously reported (1) Missing, (2) Wounded, the second notification should read:—
 - 1. Wounded and Missing, previously reported Missing.
- 2. Wounded and Missing, previously reported Wounded. In the case where an officer or other rank is reported "Wounded and Missing" and it is desired to correct the report, then it must be clearly shown whether it is desired to correct the report of Wounded as well as Missing, thus:—
 - 1. Cancel report of wounded and missing, now reported wounded.
 - 2. Cancel report both of wounded and missing.
- (i) All casualties above mentioned, including injuries, will be reported by formations in the Daily Casualty Wire to Head-quarters of Armies and L. of C. Area, in precisely the same manner as Battle Casualties have been in the past. Headquarters of Armies and L. of C. Area will include in their daily list to 1st and 3rd Echelons casualties classified as "Injuries" in the same form as Battle Casualties.
- 4. The following procedure will be adopted with regard to the method of reporting the strength and casualties of Units of the U.S. Army attached to British formations.

It is essential that the figures for British and American personnel should be kept entirely separate.

The weekly strength return of Infantry, Pioneers and Machine Gun Battalions will be forwarded by the Division to which these American Units may be attached to Army Headquarters in exactly the same way that the Weekly Strength returns are rendered for the same Units of the B.E.F

American Units will be shown at the foot of the form and will not be included in the total strength of the Division.

The Daily Strength return of Infantry rendered by Armies will show the strength of American Infantry below the British Infantry, thus:—

 Officers. Other Ranks.

 Guards
 ...
 337
 10,694

 A.I.
 ...
 90
 2,742

Accurate casualties will be reported daily by Divisions to Army Headquarters on a separate return in exactly the same manner as the accurate daily casualties of the B.E.F. are reported, except that the names of the officers will not be required.

Armies will compile a separate daily return for American Units showing the British Formation to which they are attached.

Divisions will collect the strength and casualty returns, both routine and special reports, of all attached American Units, in accordance with orders in force in American Army, and forward same to Divisional Headquarters, B.E.F., which is responsible for proper disposition as per G.O. 79, G.H.Q., A.E.F., 1917.

- 5. All officers and other ranks who, without any visible wound, become non-effective from physical conditions claimed or presumed to have originated from the effects of British or enemy weapons in action, other than cases of gas poisoning, will not be reported as Battle Casualties until they are proved as such by the following procedure:—
- (a) If it is essential to transfer them from their Unit or Division they will be sent to the special hospital set apart for their reception under orders from A.H.O.
- (b) The regimental Medical Officers or Officer Commanding Medical Unit who in the first instance deals with a case which it is necessary to transfer to the special hospital will not record any diagnosis. He will enter on the field medical card or other transfer paper the letters "N.Y.D.N.," and any definitely known facts as to the true origin or the previous history of the case.
- (c) Army Form W.3436 will be forwarded by the Officer Commanding the Special Hospital to the Commanding Officer of the Unit to which the officer or man belongs. Commanding Officers will complete this form and render it as directed thereon with the least possible delay.

- (d) If any case arrives at the Base without having passed through the Special Hospital, the Officer Commanding the Base Hospital will retain the case and notify the local administrative Medical Officer, who will report full particulars direct to the D.M.S. of the Army concerned. That officer will cause Army Form W.3436 to be completed and the case to be classified by the Officer Commanding the Special Hospital, who will then notify the Officer Commanding the Base Hospital in the usual way.
- (e) In no circumstances whatever will the expression "shell shock" be made use of verbally or be recorded in any regimental or other casualty report, or in any hospital or other medical document, except in cases so classified by the order of the Officer Commanding the Special Hospital. The D.A.G., 3rd Echelon, will notify the Commanding Officer of the Unit of any case so classified. The latter will, in the case of officers, at once report this casualty in his next daily casualty return, stating the date of the casualty and the D.A.G.'s authority for the classification.
- 6. Whenever officers or other ranks are accidentally killed or wounded, a brief report will be wired immediately the circumstances are ascertained.

If absence from duty is involved, a written report will also be rendered, without delay, of the A.F.W. 3428.

If the accident is caused by the premature explosion of a grenade, particulars on the lines laid down in Army Council Instruction No. 1894 of 1916 will accompany the report. This information will also be forwarded to Army Headquarters in addition to the proceedings when Courts of Enquiry are held on the premature explosion of grenades.

Courts of Enquiry need only be held in cases where a number of men are injured by the accident, or when considered necessary for the purpose of obtaining information as to some defect in material, or for some other special reason.

The proceedings of Courts of Enquiry will be forwarded to Army Headquarters "A" with the least possible delay.

7. At the end of each week a separate return (see pro forma below) will be rendered, showing the total numbers of missing by Divisions (all arms) and the numbers included in the missing that are thought to have been taken alive. Due allowance must be made for those who were previously reported missing,

but who have since rejoined or are now found to have been killed. This return will include casualties to 12 noon on Sundays, and must accompany the casualty return for that day, reaching Army Headquarters at 8.30 a.m. on Monday.

PRO FORMA.

SECRET.

Return of Missing and Prisoners for week ending

Missing. Estimated Prisoners.

Date. Officers. Other Ranks. Officers. Other Ranks.*

.....Division.

When officers or other ranks are reported missing, a brief statement will invariably be rendered, with the least possible delay, to Army Headquarters. Whenever possible, this statement will be included in the Casualty Report, but if this cannot be done, it must be stated in the Casualty Report that the statement follows.

STATEMENT OF ACTUAL CASUALTIES FROM NOON TO NOON.......1918.

Unit.	Killed.		Wounded.		Missing.		Date, if other	Remarks.
	0.	O.R.	О.	O.R.	0.	O.R.	than above.	remarks.
				'				

^{*} State here briefly where the action occurred.

TOTAL BY CATEGORIES.

	Shell Fire	9						
	Rifle and	Mad	chine Gu	n Fire				
	Gas							
	Aeroplan	е Во	mbs					
	Grenades	and	Trench	Mortar	Fire			
	Missing							
					Total			
]	Details of	casu	alties to	officers	are gi	ven c	on back.	
				(Signed)		
						(Canadian D	ivision.
							> 00 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

CANADIAN CORPS. Q.9/37.

February 26, 1919.

CANADIAN CORPS—"Q" BRANCH. ORGANISATION, ADMINISTRATION AND FUNCTIONS.

1. ORGANISATION OF CORPS HEADQUARTERS.

The staff of the Corps Commander comprises three branches, "G," "A," and "O."

All the orders of the Corps Commander are issued by one or other of these three branches of his staff.

The General Staff ("G") is under the B.G., G.S. (Brigadier-General, General Staff).

The Administrative Staff, which combines "A" and "Q," is under the D.A. and Q.M.G. (Deputy Adjutant and Quartermaster General).

The Administrative Staff at the time of the Armistice was:

D.A. and Q.M.G. Brig.-Gen. G. J. Farmar, C.B., C.M.G.

A.Q.M.G. .. Lieut.-Col. W. B. Anderson, D.S.O.

D.A.Q.M.G. .. Major B. W. Browne, M.C.

D.A A.G. .. Major W. Bovey.

In addition to these Staff Officers, there are a number of other officers who are attached and form part of Corps Headquarters, who have special duties, being generally the heads of their respective departments. Their duties are generally indicated by their titles.

D.D.M.S.
A.D.O.S.
Deputy Director of Medical Services.
A.D.O.S.
Assistant Director of Ordnance Services.
Assistant Director of Veterinary Services.

S.M.T.O. .. Senior Mechanical Transport Officer.

C.L.C. .. Corps Labour Commandant.

C.C. .. Camp Commandant.

A.P.M... Assistant Provost Marshal

D.A.D.R. .. Deputy Assistant Director of Roads.

D.A.D.P.S. ... Deputy Assistant Director of Postal Services.

F.C. .. Field Cashier.

C.C.A.O. .. Canadian Corps Ammunition Officer.

There are also others who are not mentioned here, as their duties are not particularly administrative.

Besides these, there are other officers employed on administrative work, of whom the chief ones are:

Corps Salvage Officer.

Corps Laundry Officer.

Courts Martial Officers.

Corps Canteen Officer.

The actual personnel of "Q" Branch consists of—

1 D.A. and Q.M.G.

1 A.Q.M.G.

1 D.A.Q.M.G.

1 Staff Learner.

1 Warrant Officer (Chief Clerk).

5 Clerks.

4 Orderlies.

The composition of the whole of the Corps Staff and attached officers on November 11, 1918, is given in Appendix A.

2. Functions of "Q" Branch.—"Q" Branch deals with all questions of supply, equipment, housing, etc., including supply of food and forage, ammunition supply, water supply, fuel, housing of troops, billeting, hutting and tents, traffic control, baths, trophies of war, claims against the Government, Courts of Enquiry, provision of horses, veterinary services, hire of land, salvage, stores, clothing and equipment, and transport.

Orders for operations or moves are issued by the General Staff. Administrative arrangements are carried out or coordinated by "Q."

The distribution of duties in "Q" Branch between the A.Q.M.G. and the D.A.Q.M.G. is given in Appendix C.

A complete copy of the Canadian Corps Administrative Instructions, which are published, amended, and republished from time to time, is attached as Appendix VI.

3. Composition of Corps.—The Corps (Army Corps) consist of :—

Two or more Divisions Corps Troops.

The Canadian Corps normally comprised the 1st, 2nd, 3rd and 4th Canadian Divisions and Corps Troops.

The normal Order of Battle of the Canadian Corps is attached as Appendix B. Besides the Formations and Units included here, there are a large number of Army and other Units attached from time to time.

- 4. **Establishments.**—In order to give an idea of the strengths of various Formations and Units referred to in this report, their establishments are summarised and tabulated in Appendix V.
- 5. **Transport.**—The two means of transport with the Corps are Mechanical Transport (M.T.) and Horse Transport (H.T.). Light railways have also been used to a large extent. The Mechanical Transport is generally controlled direct from Corps Headquarters through the S.M.T.O. Horse Transport is generally controlled by Divisions and by the Units to which it is attached.

The Mechanical Transport Units are organised as a Corps M.T. Column, which is commanded by the S.M.T.O., and comprises:—

Headquarters Canadian Corps M.T. Column. Canadian Corps Troops M.T. Company. 1st Canadian Divisional M.T. Company. 2nd Canadian Divisional M.T. Company. 3rd Canadian Divisional M.T. Company. 4th Canadian Divisional M.T. Company. Canadian Motor Machine Gun M.T. Company. Canadian Engineer M.T. Company.

The Corps Troops M.T. Company draw, handle, and deliver supplies for all Corps Troops not forming part of the Divisions.

The Divisional M.T. Companies handle supplies and ammunition each for one Division, and under the control of the S.M.T.O.

The C.M.M.G.M.T. Company provides the necessary mechanical transport for the technical duties of the two Motor Machine Gun Brigades and the C.E.M.T. Company for the Engineers throughout the Corps, including Engineer duties within Divisions.

The Corps generally had one "Army Auxiliary (Horse) Company" attached, which provided about 100 general service (G.S.) wagons for general transport purposes. These were allotted and controlled direct by the D.A.Q.M.G.

The Horse Transport with Divisions consists of the:

Divisional Ammunition Column (D.A.C.).

Divisional Train.

Transport with individual Units.

The D.A.C. handles all ammunition used within the Divisions, drawing it from railhead, from dumps, or from the M.T. Column, and delivers it to Batteries or Units as required.

The Divisional Train draws all supplies for the Units of the Division, divides up and accounts for the supplies, and eventually delivers them to the various Units.

Each Unit (except M.T. Units) has sufficient horse transport attached to carry all the stores and supplies of the Unit and to carry out the ordinary transport duties required by the Unit in action, during reliefs, or on the march.

The above may be summarised as three "echelons" of transport: (1) The Mechanical Transport, controlled by Corps, which draws supplies, ammunition, and stores from railhead or other sources and delivers to Divisions. (2) The Divisional Train and Divisional Ammunition Column, which draw by horsed wagons the supplies and ammunition respectively from the Corps and deliver to Units. (3) The "First Line Transport" of Units, which is under the control of the Units themselves and carries out all transport duties within the Units.

These distinct echelons do not exist in the case of Corps Troops (extra Divisional Units); in the case of Siege Artillery, for instance, the Mechanical Transport delivers ammunition from the railheads direct to the guns.

6. **Supplies.**—The extent to which light railways have replaced both M.T. and H.T. is discussed under a separate heading.

The term "supplies" covers all consumable provisions, including food, forage, fuel, petrol, oils and light.

One arm of the Service, the Army Service Corps, is responsible for the handling and delivering of all supplies to the troops. There are supply details with the M.T. Companies and with the Divisional Trains (which are A.S.C. Units), and all supplies are handled by them. Supplies after being unloaded at the Base are shipped by train in "sections" (generally half a train) numbered for each formation. At railhead the supplies are off-loaded and drawn away by the M.T. Companies to the "refilling points," where they are then cut up and apportioned to the various Units by the personnel of the Divisional Trains, and eventually delivered by the train to the Quartermasters of Units at the Unit horse lines or stores. The Quartermasters' staff then divides up the Unit's rations amongst the various messes, Companies, and Detachments according to strengths.

It will be seen that the rations for any Unit are thus packed for that Unit at the Base, perhaps some five days before they are actually consumed by the men. Thus, if the train journey from the Base were some 36 hours, the rations are packed in railway trucks on, say, "A" day, each truck bearing a large paper number corresponding to the "section" of the formation for which it is intended. The coal, petrol, forage, and bread, and other "components" of the ration may all be packed at different bases, but they eventually find their way, through railway regulating stations, into the same train and reach the railhead, say, on the morning of "C" day. There they are unloaded into the lorries of the M.T. Company (or sometimes by light railway or by horse transport to economise mechanical transport) and transported to the refilling points. After being divided up by the men of the train they are then loaded into the train wagons on the afternoon of "C" day and the wagons remain loaded in their own park overnight. They are then delivered to the Quartermasters of Units on the morning of "D" day, divided up, and issued to messes, etc., and actually consumed by the men on "E" day.

The strength of Formations and Units varies from time to time, and the strength of the "Pack" required for each "Section" is notified daily by the Senior Supply Officer (S.S.O.) of the Division concerned. It is obvious that any change must be anticipated and arrangements made some five days in advance, and the difficulty of foreseeing such changes during operations is considerable.

A "Pack" contains a definite number of complete rations according to the strength of the formation for which it is intended. Should a formation require more rations the difference is made up from "Field Supply Depots" located at convenient points along the front. Similarly, any rations surplus from the Pack Train are returned to the nearest Field Supply Depot varies, generally about 50,000 rations. There are two or three Field Supply Depots to an Army.

The Army is responsible for delivering supplies at the railheads. The Corps is responsible for conveying them from railhead by lorry or light railway to refilling points. Divisional Trains are responsible for getting them to Units, and the Units themselves (by pack transport if necessary) to all the troops, including those in the actual fighting line.

The system, as regards the supply of Corps Troops is practically the same, but that the M.T. Company delivers direct to Units instead of to a "Divisional Train."

The supplies carried in the field are for each man:

On the man or in the Field

Kitchen The unexpended portion of the day's ration. Also one complete iron ration.

In the Divisional Train .. One complete ration.

In the M.T. Company .. One complete ration.

In addition to the normal supply large reserves are always held in the Army areas in Field Supply Depots to provide against any breakdown of the normal supply.

- "Q" Branch is responsible for the co-ordination of all these services, for arranging the position of railheads and refilling points, and generally for the whole service of supply.
- 7. **Ammunition.**—The method of handling and supply of ammunition is very similar to that of supplies. The Army is responsible for the delivery of ammunition as required at railhead. The Corps is responsible for its delivery to Divisions at Ammunition Refilling Points (A.R.P.), and the Divisional Ammunition Column is responsible for its delivery from there to Batteries or other Units. The Corps Heavy Artillery does not form part of any Division, and draws its ammunition direct by mechanical transport from the Army and delivers it to Batteries under Corps arrangements. As with supplies, the

"Q" Branch of the Corps is responsible for the supply, for co-ordinating all arrangements, and for anticipating requirements in sufficient time to ensure that a supply is available. In order to provide a reserve to meet any emergency the Army and the Corps each maintain "dumps" varying in size with the possibility or probability of active operations requiring a sudden increase in the ammunition expenditure, and probably containing some thousands of tons. "Q" Branch is responsible for the care of all ammunition on charge and for the proper accounting for all ammunition expenditure, but not for the control of the expenditure, which depends solely upon the tactical considerations.

As regards supply, there are three distinct natures of ammunition:—

Heavy.—For all natures of siege and heavy guns in the Corps Heavy Artillery.

Field.—For field (light) guns and howitzers of Divisional Artillery.

Trench Munitions.—Which includes rifle and machine gun ammunition, bombs, grenades, and all natures of "fireworks," i.e., flares and signal lights.

The Corps M.T. Column, which includes all Divisional M.T. Companies, is the Unit which draws all ammunition required by Divisions (i.e., field gun ammunition and trench munitions) from the Army, either direct from railhead as it arrives or from Army Dumps. This ammunition is delivered to Divisions as required at their Divisional A.R.P., or is stored by the Corps M.T. Column in Corps Dumps until required. At the A.R.P. the ammunition is unboxed and drawn forward by the Divisional Ammunition Column, which has General Service wagons for the carriage of ammunition in bulk, and also Limbered Ammunition Wagons, which are fitted to carry a number of rounds ready for the gun in individual compartments. Attached to the Corps M.T. Column is certain artillery personnel specially trained for the care of ammunition handled or stored by the Column, and one Artillery Officer, an expert in the care and handling of ammunition. This officer (the Canadian Corps Ammunition Officer) works directly under "Q" Branch, and is the technical adviser in all matters regarding the care and handling of ammunition. He also supervises the accounting and issue of ammunition of all kinds.

Heavy ammunition is not handled by the Corps M.T. Column, but by the Corps Siege Park, which is a composite Unit comprising the mechanical transport of all Siege and Heavy Batteries. It draws all heavy ammunition from the Army in the same way, but delivers direct to Batteries.

In normal trench warfare the mechanical transport of the Corps M.T. Column and of the Corps Siege Park is almost wholly replaced by light railway, which carries heavy ammunition direct from railhead to the guns themselves, and field gun ammunition from railhead to the A.R.P., and sometimes even from the A.R.P. to the Batteries. The use of light railways is described and discussed elsewhere.

Besides the actual supply of the ammunition there is a great deal of work necessitated by the return of the empty brass cartridge cases.

These valuable components in the manufacture of ammunition have to be withdrawn from the gun positions under hostile fire, re-boxed, and returned to England through the same channels through which they were issued.

8. **Movements.**—The orders for the moves of Formations or Units are issued by "G," but the details of all moves are worked out by "Q," and all administrative arrangements are co-ordinated and effected by "Q."

Thus if a Unit is to move by rail the time of entraining and departure, rations and fuel for the journey change of supply arrangements to the new area, transport to and from the railway, etc., must all be considered and arranged by "Q." The arrival or departure of any Unit affects all branches of the staff, as new arrangements for supply, medical attendance, ordnance stores, leave, postal services, etc., must be brought into effect, and the early notification of such moves to all concerned is one of the most striking characteristics of an efficient "Q" Branch.

9. Quarters.—The discipline and the fighting efficiency of the troops depends principally upon the degree of comfort which they experience as regards housing, feeding, clothing, and bathing. If troops are well cared for in these respects and exercised, the rest is simply a matter of training and experience. All these administrative arrangements devolve upon the "Q" Branch of the Corps or Division concerned. The general area to be occupied by any Formation is laid down by "G," but the sub-allotment to Units and the distribution to billets, huts,

or camps is carried out by "Q" as well as the provision of huts, tents, floor boards, palliasses, beds, blankets, stoves, etc. The huts or stoves are actually produced and erected by the Engineers; the tents, palliasses, blankets, etc., by the Ordnance; but the issue of all instructions which lead to their provision and the co-ordination of all services to ensure the maximum of comfort to the troops with the least possible annoyance is the function of "Q" Branch.

- 10. Road Control.—The control of traffic during and immediately prior to operations is a task quite as difficult as the control of traffic in a large city, apart from the hostile fire which is liable to upset all traffic at any minute. "Q" is responsible for the maintenance and construction of roads, for the allotment of roads to different natures of traffic, and for the control of the speed and direction of traffic as laid down. The construction and maintenance of roads is carried out through the D.A.D. Roads, whose functions and duties are described more fully elsewhere. The control of traffic is carried out by special "Traffic Control" personnel (under the A.P.M.), which provides traffic control posts at all important points and by mounted patrols on all important roads. During operations the traffic on some roads forms one continuous stream, sometimes for hours, and the slightest delay might have most serious results. To prevent this requires constant supervision by special personnel prepared to take immediate action to remedy any mishap.
- 11. **Water Supply.**—The supply of water for drinking and cooking and for watering horses is a big question in case of a large concentration of troops in an area not well supplied with water. It has generally been necessary to sink wells (bore-holes), and often to pipe water for considerable distances.

The engineers arrange and carry out all services regarding the supply and distribution of water.

The Corps Water Patrol Officer, under "Q" Branch, patrols all water systems and supervises the watering arrangements and chlorination.

12. **Salvage.**—The economies which can be effected in the salvage of abandoned material or material which is no longer required cannot be over-estimated.

The amount of stores, equipment, engineer material, wire, ammunition, brass cartridge cases, etc., which becomes scattered

about the country is enormous, and a special salvage organisation exists for the collection and shipment, or reissue of all such material.

The Corps Salvage Officer, under "Q" Branch, is in charge of all salvage personnel and operations.

The collection of dripping from unused fats, of solder from empty tins, of oils and greases from apparently empty containers, of waste paper, etc., has yielded immense returns, besides providing most necessary raw material for further manufacture.

The approximate cash value of the salvage effected by this Corps during 1918 was \$8,737,775.

- 13. **Gifts and Comforts.**—The distribution of gifts and comforts sent from home to the troops is under the supervision of "Q" Branch. The Canadian War Contingent Association has been most helpful in sending out seasonable gifts and the comforts and extra luxuries most appreciated by the troops.
- 14. **Hire of Lands and Buildings.**—There is a special branch of the British Army which deals with this question, but all correspondence passes through "Q" Branch, which also makes the necessary arrangements for the hirings when the case is too complicated for the Units themselves. All hirings of buildings are approved by "Q" on behalf of the Corps Commander before being achieved.
- 15. **Accounts and Allowances.**—All questions of allowances are submitted to "Q" Branch, and all claims for allowances, or accounts for approval are submitted through **ii** Q" Branch, before they can be paid by the Field Cashier. Pay (as distinct from allowances), is dealt with by "A" Branch.
- 16. **Claims.**—Claims from inhabitants are received for many reasons and causes of damage. Some of these are:—
 - (a) Damage to crops, fields, or pasture land.

(b) Damage to buildings, etc.

(c) Personal injuries.

(d) Occupation of buildings.

(e) Damage to civilian vehicles.

In each Division there is a Claims Officer, whose duty it is to investigate all the above-mentioned claims on behalf of "Q" Branch. If a claim is legitimate and does not exceed a certain sum of money, and, of course, providing no individual is to blame, the Claims Officer is empowered to adjust the



The Canadian Salvage Corps has saved great sums of money. Every man was taught to save material to the utmost.



claim on the spot. If, however, there is any doubt as to the responsibility, or if the amount exceeds the sum referred to, all available evidence for and against must be submitted to the "Claims Commission" for instructions or advice. Wilful damage, if the guilty individual or Unit can be located, must be paid for by the party causing the damage.

The total number and value of claims submitted by civilians to Canadian Corps in 1917 was:

2,698 claims, amounting to 167,931.91 francs.

17. **Cookery.**—The rations have been consistently good and ample, but a good cook is essential. He will ensure variety in the methods of preparing the food, as a consequence of which, the men relish their meals, which they would not do were they to receive the same food prepared continually in the same way.

Schools of Cookery have, therefore, been established, where men are given instruction in cooking, the erection of improvised ovens, sanitation, and economy.

Dripping is collected by the cooks, without depleting the men's rations; and after all required dripping is used, it is shipped to the Base. For dripping, Units were paid 0.35 francs per pound, and for the first eight months of 1918 the Canadian Corps turned in 421,043 lbs., amounting to 147,366.05 francs.

18. Captured Stores and Equipment.—Captures may be either claimed as trophies of war, or, if not claimed, are used to the best advantage for the needs of the Army. During the advance in the autumn of 1918 great quantities of coal, wood, stone, straw, engineer material, etc., were captured. A guard was immediately placed on this, and it was then taken on charge and issued in lieu of British material by the branch most concerned.

Any trophy which a Unit desires to claim is marked in chalk at the time of the capture with the name of the Unit and marks of identification. All claims are generally approved, unless the trophies are required for instructional or other purposes.

The principal trophies captured by the Canadian Corps between August 1 and November 11, 1918, were:

Machine Guns		 	2,842
Trench Mortars		 	336
Light Guns	• •	 	432
Heavy Guns		 	154

19. **Courts of Enquiry.**—"Q" Branch handles a great number of Courts of Enquiry, held to establish the facts of the case and to place the responsibility for loss. The principal subjects of Courts of Enquiry are—

Fires.
Damage to Vehicles.
Accidents to Inhabitants.
Loss of Stores.
Loss of Vehicles.
Loss of Horses.

The Court must decide the responsibility and recommend as to whether the loss is to be borne by the public or by the individual or Unit concerned.

20. **Baths and Laundries.**—As soon as the Corps moves into a new area central baths and central laundries are established, this being necessary owing to the scarcity of water in many localities and the congestion of men. Normally, all laundry work is performed at Area Laundries, on the Lines of Communication.

Soiled garments, after being disinfected, are sent direct by Divisions or Corps Troops Laundry Officer to the Area Laundry.

All repair to damaged clothing, and the condemning of such articles as are beyond repair, is done at the Area Laundry. Every article has to be accounted for, and the accounting at bath-houses, storehouses, and Area Laundries is quite an item in the supply of clean clothing to the troops.

There are baths in every locality where troops are billeted. Troops are marched by Units to the bath-houses, but any man going on leave, etc., can present himself at any of the baths and secure a bath and clean change of underwear.

Baths are under the immediate control of "Q" Branch of the Division in whose area they are or the Area Commandant in an area not controlled by a Division, the whole being co-ordinated by Corps "Q" Branch.

Frequently, owing to congestion of traffic during operations, and also while advancing through territory recently occupied by the enemy, it was found advisable to use any available civilian laundries; and also allow the civilians to wash and repair the garments at a normal price. Soap was supplied by Ordnance, as there was a great scarcity of this commodity among the civilians.

Divisional bath-houses, which were erected by the Engineers, were capable of handling from 50 to 150 men per hour. Generally speaking, an Infantry Battalion of full strength could be bathed and issued with clean clothing in a day.

Before the advance, and when troops were in the back areas, civilian mine baths were used extensively. They were, generally, very large, and capable of taking 250 men per hour. Amicable arrangements could always be made with the mine owners.

21. **Canteens.**—The system of supplying extras to the troops is done through the medium of the Y.M.C.A., the Chaplain Services, and the Expeditionary Force Canteens.

The Y.M.C.A. and Chaplain Services work entirely within themselves; that is to say, they establish their own canteens at convenient places, both in and out of the Line. Both of these organisations always have canteens well forward, supplying hot coffee, etc., free to the troops. They obtain, particularly the Y.M.C.A., Canadian made goods, which appeal especially to the men. A percentage of the profits is given to the Units, which is used to buy vegetables, etc., supplementary to the regular ration.

Each Division and Corps Troops have a Canteen Officer, and each have a large wholesale canteen. In the centre of the Army Area the E.F.C. establish a distributing house. Divisions and Corps Troops, on a proportionate basis according to their ration strength, draw once a week. It is then arranged for lower formations to draw from the Divisional or Corps Troops Canteen, also according to strength. In this way everyone is fairly served.

The provision of canteen supplies is very good, and, unless prevented by traffic conditions, a good variety arrives regularly from the Base.

22. **Year 1918.**—The history of the work of "Q" Branch of the Corps cannot be separated from that of the other branches; that is, of the Corps as a whole. "Q" Branch moved with Corps Headquarters, and was simply engaged upon the large and varied administrative arrangements necessitated by the operations in hand at the time. The history of the Corps for 1918 covers the accomplishments of "Q" Branch under the various headings and functions already enumerated and described.

The facts and records as to the supply of ammunition, the amounts expended, and the daily notes of interest are incorporated in the monthly war diary, which has been sent to the Record Office, and no further records or duplicates exist in "Q" Branch at present.

The only change in the staff of "Q" Branch during the year was in the appointment of D.A.Q.M.G. Major R. G. Thackery, M.C., was succeeded on September 21, 1918, by Major B. W. Browne, M.C.

The work of "Q" Branch seems too varied and dependent on the circumstances of the moment to attempt any full history here.

APPENDIX A.

HEADQUARTERS, CANADIAN CORPS.

Nov. 11, 1918.

Canadian Corps,

March 4, 1919.

COMMANDER: -Lt.-Gen. Sir A. W. Currie, K.C.B., K.C.M.G.

A.D.C. TO COMMANDER: Major H Willis O'Connor, 2nd Canadian Battalion.

A.D.C. TO COMMANDER:—Capt. Hon. W. J. Shaughnessy, Quebec Regiment.

A.D.C. TO COMMANDER:—Lt. A. W. Gordon, M.C., 1st. Auckland Battalion.

G.S. Branch.

B.G.G.S.:—Bt. Lt.-Col. (Temp. Brig.-Gen.) R. J. F., Hayter, C.M.G., D.S.O., Cheshire Regiment.

G.S.O. 1:—Major (T/Lt.-Col.) M. C. Festing, D.S.O., R.M.L.I.

G.S.O. 2:—Lt.-Col. J. M. Prower, D.S.O., Manitoba. Regiment.

G.S.O. 2:—Major H.R.H. Prince A. F. P. A. of Connaught, K.G., K.T., G.C.V.O., C.B., 2nd Dragoons.

G.S.O. 2:—Lt.-Col. A. A. Magee, 1st Quebec Regiment (Acting).

G.S.O. 3:—Temp. Lt. (T/Capt.) F. M. Bressey, M.C., 16th Canadian Battalion.

A. and Q. Branch.

D.A. and Q.M.G.:—Bt.-Col. (Temp. Brig.-Gen.) G. J. Farmar, C.B., C.M.G., Worcester Regiment, p.s.c.

A.Q.M.G.:—Bt. Lt.-Col. W. B. Anderson, D.S.O., R.C.E., p.s.c.

D.A.A.G.: -Major W. Bovey, 42nd Canadian Battalion.

D.A.Q.M.G.:—Major B. W. Browne, M.C., 16th Canadian Battalion.

Administration Services and Departments.

CHIEF SIGNAL OFFICER:—Lt.-Col. E. Forde, D.S.O., Canadian Engineers.

D.A.D. Roads:—Temp. 2nd Lt. (Temp. Major) L. D. Lewis, Royal Engineers.

LABOUR COMMANDANT:—Major (T/Col.) A. W. R. Wilby, 7th Canadian Battalion.

Assistant to Labour Commandant:—Capt. F. Y. Harcourt, 1st Canadian Infantry Workers' Battalion.

D.D.M.S.:—Col. A. E. Snell, C.M.G., D.S.O., Canadian Army Medical Corps.

D.A.D.M.S.:—Major R. M. Gorssline, Canadian Army Medical Corps.

A.D.O.S.:—Lt.-Col. H. R. V. Count de Bury and de Bocarme, Canadian Corps Ordnance.

D.A.D.O.S.: -Capt. W. G. Hale.

A.D.V.S.:—Lt.-Col. A. B. Cutcliffe, D.S.O., Canadian Army Veterinary Corps.

D.A.D.R.P.S.:—Capt. F. A. Warner, Canadian Postal Corps. FIELD CASHIER:—Lt.-Col. S. R. Heakes, O.B.E., Canadian Army Pay Corps.

Special Appointments.

A.P.M.:—Major F. Gilman, D.S.O., Royal Canadian Dragoons.

CAMP COMMANDANT:—Lt.-Col. A. McMillan, D.S.O., Royal Canadian Dragoons.

Assistant Camp Commandant:—Capt. A. L. Brick, 10th Canadian Battalion.

STAFF CAPTAIN:—Temp. Capt. S. A. Vernon, M.C., 47th Canadian Battalion.

Headquarters, Artillery of the Corps.

COMMANDER:—Maj.-Gen. E. W. B. Morrison, C.B., C.M.G. D.S.O., Canadian Artillery.

G.S.O. 2:—Major D. A. White, D.S.O., Royal Field Artillery.

STAFF CAPTAIN:—Capt. H. D. Fripp, Canadian Field Artillery.

S.O. FOR RECONNAISSANCE:—Lt. W. M. Taylor, Canadian Field Artillery.

Lt.-Col. R.A. attached for Counter Battery Work:—Major H. D. G. Crerar.

Headquarters, Corps Heavy Artillery.

COMMANDER:—Lt.-Col. (Temp. Brig.-Gen.) A. G. L. McNaughton, D.S.O., Canadian Artillery.

Brigade Major:—Major N. W. Aitken, D.S.O., M.C., Canadian Artillery.

STAFF CAPTAIN:—Capt. L. P. Napier.

Attached.

C.E.:—Brig.-Gen. W. B. Lindsay, C.M.G., D.S.O., Canadian Engineers.

S.O. to C.E.:—Major F. O. Hodgins, D.S.O., Canadian Engineers.

STAFF CAPTAIN:—Lt. (Temp. Capt.) A. T. McLean, Canadian Engineers.

STAFF CAPTAIN:—Lt. (Temp. Capt.) E. C. G. Chambers, M.C., Canadian Engineers.

C.R.E. Corps Troops:—Lt.-Col. J. Houliston, C.M.G., Canadian Engineers.

ADJUTANT TO C.R.E. CORPS TROOPS:—Capt. D. C. U. Simpson.

Canadian Corps.
Q.9/37.
Feb. 26, 1919.

APPENDIX B. ORDER OF BATTLE.

Nov. 11, 1918.

Headquarters, Canadian Corps.

1st Canadian Division.

2nd Canadian Division.

3rd Canadian Division.

4th Canadian Division.

5th Canadian Divisional Artillery.

8th Army Brigade, Canadian Field Artillery.

Various Attached Units.

Canadian Light Horse.

Royal North West Mounted Police.

Canadian Corps Heavy Artillery.

Canadian Cyclist Battalion.

1st and 2nd Canadian Motor Machine Gun Brigades.

Canadian Corps Signal Company.

Canadian Works Group.

Canadian Corps M.T. Column.

Canadian Corps Siege Park.

Nos. 81, 82 and 83 (Canadian) Ordnance Mobile Workshops.

5th, 6th, 7th, 8th, and 9th Canadian Area Employment Companies.

Canadian Corps.

Q.9/37.

March 1, 1919.

APPENDIX C.

DISTRIBUTION OF DUTIES—CANADIAN CORPS "Q."

A.Q.M.G.

Ammunition.

Arrival of Units.

Billeting.

Fuel.

Grenades, Bombs, etc.

Hutting.

Movements.

Movements by Rail.

Notification of Moves.

Organisation.

Publication of Orders.

Railheads.

Railways and Tramways.

Registry.

Requisitioning.

Road Control.

Supplies.

Water Supply.

D.A.Q.M.G.

Accidents (to vehicles or in-

habitants).

Accounts.

Allowances.

Baths and Laundries.

Canteens.

Captured Stores and Equip-

ment.

Claims—Inhabitants.

Claims—Loss of Kit, etc.

Cookery.

Courts of Enquiry.

Fires.

Gifts and Comforts.

Hire of Land and Buildings.

Postal Services.

Remounts.

Returns.

Salvage.

Stores, Clothing, Equipment.

Stationery.

Transport.

Veterinary Services.

War Diary.

Water Patrols, etc.

Proposed Re-Organisation of the Canadian Corps.

Owing to the shortage of available reinforcements at the beginning of 1918, the War Office was confronted with the alternative of either reducing the number of Imperial Divisions in the field or of cutting down the number of men in each Division. They decided on the latter course and accomplished it by reducing their Infantry Brigades from four to three Battalions. With the personnel of the Battalion thus set free, they brought up the remaining three Battalions in each Brigade to full strength.

A suggestion for a similar re-organisation of the Canadian Divisions was communicated to the Minister by a letter dated Janaury 11, 1918, from the War Office to Canadian Headquarters, intimating that the Army Council (Imperial) would be glad to know whether the Canadian Military Authorities were prepared to expand the Canadian Corps in accordance with the Imperial scheme, and indicating that they would welcome the adoption of such an arrangement.

The Canadian Corps consisted of four Divisions, each containing three Brigades of four Battalions. The adoption of the Imperial system would have involved the creation of two Corps out of the existing Corps. This would have been accomplished by cutting down the strength of each of the four Divisions to nine Battalions instead of twelve, thus releasing twelve Battalions, which, with the addition of six new Battalions from the 5th Division, at that time in England, would have given the material for six Divisions on the Imperial scale of nine Battalions each. Furthermore, it would have involved the creation of six new Brigade Staffs, two new Divisional Staffs, one additional Corps Staff, and possibly something in the nature of an Army Staff to direct the two Corps, all of which would have entailed increased expense, and a heavy strain on the available supply of trained Staff Officers.

The proposals of the Army Council received the most careful consideration, but after a consultation with the Corps Commander and with the Chief of the General Staff, the Minister came to the conclusion that nothing would be gained by adopting the proposed re-organisation. It was felt that the conditions necessitating the change in Imperial formations

did not exist with regard to the Canadian Forces. In their case the supply of reinforcements was assured, and the effect of the proposed change would not have been, as in the case of the Imperial Forces, merely to maintain the *status quo*, but to increase the number of Canadian formations in the field, and the number of troops required to maintain them at full strength.

The Canadian Corps in the existing formation had proved itself a smooth-running machine of tremendous striking power, and any radical alteration in its constitution might have resulted in a reduction of such power without any compensating advantages.

At a time of national crisis, such as that in the spring of 1918, it would not have been permissible to allow sentiment to stand in the way of any change likely to further the common cause. Every soldier would have been prepared to sacrifice the pride which he had in his particular Brigade and in the Corps as a whole. At the same time it should be a matter of deep gratification to all Canadians that, for practical reasons, it was possible to avert what, from a sentimental point of view, would have almost amounted to a national calamity, namely, the breaking up of a Corps, which as such, had gained a unique position among the armies on the Western Front.

Canadian Cavalry Brigade.

RECORD OF THE MOUNTED CORPS WHICH FOUGHT WITH DISTINCTION AND SUCCESS.

The history of the Canadian Cavalry Brigade, as such, dates from December, 1914. At the time of its formation it was placed under the command of Major-General, then Brigadier-General, J. E. B. Seely, C.B., C.M.G., D.S.O., M.P. (formerly Secretary of State for War in Mr. Asquith's Government) and now Under-Secretary of State for Air in the Imperial administration. General Seely remained in command until May 20, 1918, when he was succeeded by the present Commander, Brigadier-General R. W. Paterson, D.S.O., of the Fort Garry Horse.

The Brigade originally consisted of the Royal Canadian Dragoons, Lord Strathcona's Horse, King Edward's Horse (an Imperial unit), and the Royal Canadian Horse Artillery. In January, 1916, the King Edward's Horse left the Canadian Brigade to return to the Imperial Cavalry, and its place was taken by the Fort Garry Horse, which, since December, 1914, had been known as the Canadian Reserve Cavalry Regiment.

The units of the Canadian Cavalry Brigade are now the Royal Canadian Dragoons, Lord Strathcona's Horse, Fort Garry Horse, Royal Canadian Horse Artillery, Machine Gun Squadron, Canadian Cavalry Field Ambulance and the Mobile Veterinary Section. All units of the Brigade formed part of the 1st Canadian Contingent, which arrived in England in October, 1914. The Fort Garry Horse was then a dismounted unit known as the 6th Battalion, Fort Garrys, and was for a short time a Battalion in the 2nd Canadian Infantry Brigade on Salisbury Plain. The other Cavalry Regiments of the Cavalry Brigade were attached as independent units to the First Canadian Division.

The Brigade left for France as a Dismounted Force at the latter end of April, 1915, a few days after the commencement of the Second Battle of Ypres, in which the First Canadian Division played such a distinguished part. The Brigade arrived in France on May 4, and almost immediately afterwards played a prominent part in the fighting at Festubert, later serving in the trenches as Infantry in the Givenchy Sector.

In July, 1915, the Brigade left the Givenchy and Festubert sectors and went into the line at Messines, where it continued to serve as a dismounted force until the end of January, 1916. On the 16th of the following month the Brigade was reconstituted as a Cavalry Force and attached to the First Indian Cavalry Division, later to the Second Indian Cavalry Division, then to the 3rd British Division, and afterwards to the Fifth Cavalry Division (formerly Second Indian), replacing the famous Meerut Brigade which was sent East. These transfers took place between February and June, 1916, and in those months a thorough course of training was undergone to prepare the newly reconstructed Brigade for the expected operations on the Somme.

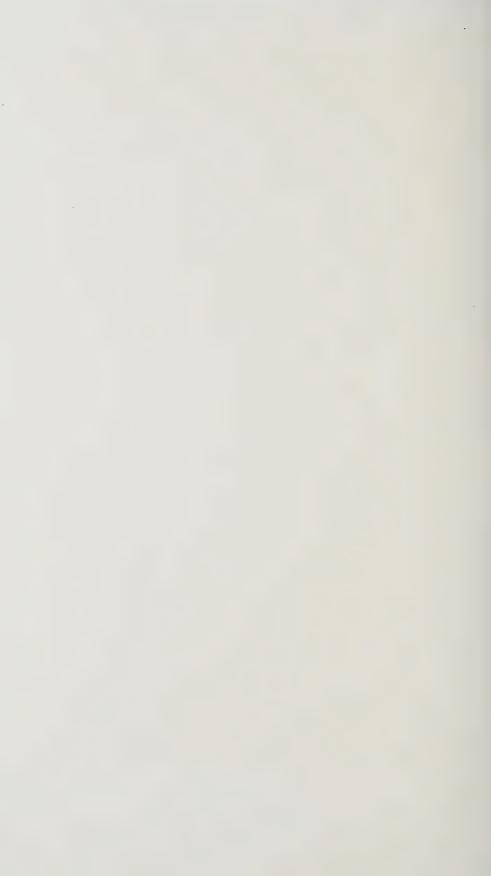
On the Somme.—The first movement of the Brigade as a mounted force in the Battle Zone was in the latter part of June, 1916, when it was detailed as the advance guard of the Fifth Cavalry Division in the operations south of Albert, on the Somme, which began in real earnest, so far as all arms of the service were concerned, on July 1. Since that first appearance as mounted troops the Canadian Cavalry Brigade has earned for itself an honourable record as a fighting force in the various actions in which it has taken part in different parts of France and Flanders. It played a conspicuous part in the German retirement in the Somme area, which took place in the early part of 1917, and in the fighting at Saulcourt-Guyancourt. It was here that Lieutenant F. M. W. Harvey, of Lord Strathcona's Horse, won the Victoria Cross for rushing a machine gun post and capturing it, with the result that many of the lives under his command were saved.

In the attack of the Third British Army on Cambrai, the Brigade at the opening stages of the attack on November 20, 1917, and later, on the morning of November 30, when the German counter-attack was delivered with tremendous force, rendered gallant aid to the infantry. The dashing and intrepid feat of Major H. Strachan, of the Fort Garry Horse, in the neighbourhood of Masnieres (Cambrai), earned for him the Victoria Cross.

In March, 1918, when the Germans launched an Offensive which necessitated the withdrawal of the Allied line towards Amiens, the work done by the Brigade stands out as one of the most brilliant episodes of the war. General Rawlinson, commanding the Fourth British Army, told the Brigade that it had contributed very largely in preventing what, at times, had the



Canadian Light Horse going into action after the taking of Vimy Ridge. They did much brilliant work on the plain beyond.



aspect of developing into a very serious disaster, and that their work at Moreuil and Rifle Woods had undoubtedly saved Amiens.

At Amiens.—At the battle of Amiens on August 8 the Brigade went into action and cleared the way to a large extent for the Canadian Infantry to advance. Their entry into the attack on a front of over three miles, formed up in waves that measured about a thousand yards in depth, afforded one of the most picturesque and thrilling sights of the war. The dash and courage displayed by the three regiments and the Royal Canadian Horse Artillery is acknowledged by the chief military authorities who directed the battle to have been a big factor in the unqualified success of that famous battle.

On July 14, 1916, the Brigade was detailed to act as an advance guard and went into action in the neighbourhood of Bazentin-le-Grand, one squadron of the Fort Garry Horse reaching Caterpillar Valley, and another squadron of the same regiment, with the Secunderabad Brigade, went through the Infantry line and reached High Wood, an advanced position that was held by them until the next morning, when the Infantry came up and consolidated the occupation.

During the latter part of July, the whole of August, and the first two weeks in September of 1916 the Brigade was once more employed as Infantry in the line and in the construction of roads, railway lines, trenches, etc., in order to lend every possible support to the operations being carried out by the Infantry.

It was about September 15 this year that an entirely new weapon in modern warfare appeared on the battlefield—the Tank. The Tanks made their debut in the vicinity of Delleville Wood, and the Brigade was ordered to send patrols forward to reconnoitre and obtain information of the ground and situation ahead that would be useful to the Tanks. The main body of the Brigade was not called on to take part in the fighting, but, after the first advance by the Infantry, turned to and built a tramway track through a trench system to enable supplies to be taken forward.

During the autumn and winter of 1916 the horses of the Brigade were left in the back areas with a few men to look after them, and the remainder of the personnel of the Brigade went into the line again in the Somme sector and did duty in the trenches with various units and formations.

Word was received on March 10, 1917, that the Germans were in full retreat in the neighbourhood of Peronne. The

Canadian Cavalry Brigade moved after them on March 23. Peronne was reached on the following day in bitterly cold weather and the whole Brigade went into action on a 12-mile front.

There were important engagements at Ytres, Bois de Vallulart, Etricourt Station, Equancourt, Longavesnes, Lieramont, Guyancourt, and Saulcourt, during March 24, 25, 26, 27, and 28, in which all regiments and the R.C.H.A. Brigade took part with such dash and determination that the enemy was driven back to the Hindenburg line.

This achievement was accomplished in the face of many difficulties, such as atrocious weather and the lack of water for men and horses; for the enemy in his retreat had fouled practically all wells and ponds in the neighbourhood. The casualties in the Brigade during the fighting were not excessive, while heavy losses were inflicted on the enemy.

An interesting fact in connection with this fighting is that it was the first to take place in open country for over two years, and the taking of the village of Ytres by the Fort Garry Horse marked the capture of the first village by the Cavalry on the Western Front since the early days of the war.

Triumph for the Sabre.—It was during this action that it was discovered that the German infantry with machine guns, which invariably held out to the last against an Infantry attack, readily surrendered to the cavalry. The prisoners captured confessed that they were seized with a great fear when they saw mounted troops charging down on them with the sword. It established a triumph for the sabre.

Following this the Germans succeeded in making an organised stand on a line running north and south-east of St. Quentin. Later the Brigade was sent into the trenches near St. Quentin as a dismounted force.

On May 26, 1917, the Fort Garry Horse and Lord Strathcona's Horse carried out simultaneously two very successful raids on the St. Quentin front, which resulted in the capture of 40 Germans, two of whom were officers, and the killing of a large number of the garrison.

Lord Strathcona's Horse and the Fort Garry Horse carried out another important raid on the night of July 9 near Ascension Wood. In this raid a section of the enemy's front line, 1,000 yards in length, was attacked and penetrated to a depth of 600 yards.

This raid was notable for the fact that it was necessary for the Cavalry to cross a 2,000 yards stretch of "No Man's Land" before the enemy's wire was reached. Notwithstanding this, the operation was a great success. One officer and 35 other ranks were taken prisoners, one machine gun was captured, and three were put out of action. It was later learned from enemy sources that an entire company had been destroyed in this raid, while the raiding party had one officer and one man killed.

Early in November the Brigade was selected to act as an advance guard in the proposed attack on Cambrai. At midnight on November 19 the Brigade was on the move, and the following morning went into action. On reaching Masnieres, the Fort Garry Horse found that the bridge over the canal there had been blown up, and that the enemy was holding that part of the village which was on the east side of the canal. With the assistance of French civilians, the Commanding Officer of the 1st Canadian Motor Machine Gun Brigade and two officers of the Fort Garry Horse, inprovised a temporary bridge from whatever material they found on hand. This enabled a squadron of the Fort Garrys to cross the canal and to proceed on the special mission to which it had been assigned, namely, to get through as rapidly as possible to the German Headquarters east of Cambrai, and cut all communications on the way. An order was later sent forward that the Fort Garry Horse was not to attempt to make a crossing, but by the time this message got as far as the canal the Fort Garrys were some distance on the way to carry out the dangerous task allotted to them. The order reached the head of the Cavalry forces detailed to support the Fort Garry Horse's movement before they crossed the canal, and consequently they turned back.

A Gallant Exploit.—Meantime the officer in command of the Fort Garry Horse Squadron, thinking that support was close behind him, carried on without encountering much opposition. Here and there an enemy battery was met and disposed of with the sword. By night, however, the Germans realised that they had only one squadron of Cavalry to deal with, and so closed in on it from either flank in an attempt to cut off its retreat. Thereupon, what horses remained to the troop were stampeded and the officers and men fought their way back on foot bringing with them several prisoners.

Ten days later the Germans delivered a counter-attack against the newly-captured front, and the Canadian Brigade

was rushed into action at Vaucelette Farm, where it was known that there was a gap in our line. It was then largely due to the fine work performed by Lord Strathcona's Horse that the enemy was driven back as far as Villiers Guislan and touch established with the British Guards' Division at Gauche Wood. The work of the Brigade in this action won great praise from the higher authorities.

Two days before Christmas, 1917, the Brigade was again in the trenches near St. Quentin as Infantry, the horses being kept in the forward area so as to be ready for any emergency that might call for cavalry work.

On the night of February 12-13, 1918, another raid was made by the Canadian Cavalry at Ascension Wood, in exactly the same place and with almost the same results as the one on July 9, 1917. On this occasion it was carried out by the Royal Canadian Dragoons, and an entire company of the Fourth German Foot Guards was killed and captured, the company commander being among the prisoners. In the seven months that had elapsed since the previous raid, the position had been re-fortified and rendered much stronger than before. New dug-outs had been built, and some elaborate strong points installed. The casualties to the raiding force were, however, very slight, only one man being killed.

The Brigade was moved some distance back from the front line on March 5, and the Fifth Imperial Cavalry Division being ordered to another part of the front, the Canadian cavalrymen were transferred to the Third Imperial Cavalry Division.

On March 21 the long expected German Offensive was launched against the British line east of Amiens. The Canadian Cavalry Brigade (less R.C.H.A. Brigade which was in the line in support of the 24th Division in front of Vermand) was at Athies, and by 8 a.m. of that day the Brigade was on the move to Beaumont. There, on arrival, orders were received to send as many men as possible forward, dismounted, to reinforce the Infantry, and a force of 800 went forward under the command of the Commanding Officer of Lord Strathcona's Horse. They rode as far as Ugny, whence they proceeded to the front line on foot.

The remainder of the Brigade, known as Harman's Detachment, were there attached to the 3rd Cavalry Division, which was commanded by Lieutenant-Colonel R. W. Paterson, now Brigadier-General.

On the morning of March 24 the enemy was forcing the British line back on a section of the front. General Paterson pushed his force ahead to the neighbourhood of Villeselve and succeeded in establishing a line, but later had to withdraw as the Infantry on the flanks had been compelled to fall back.

Paterson's Force.—The Canadian Mounted Detachment was then sent out to re-establish the line from the southern edge of Villeselve, and by sheer courage accomplished this most difficult task. Strong parties of the enemy tried to enter Villeselve, but the volume of fire delivered by the Canadians caused them to retire in disorder. The cavalrymen continued to hold that line until the evening when they were ordered by the French, under whose orders they had been placed during the day, to take up a new line in the neighbourhood of Guiscard, in order to cover the withdrawal of the falling back of the Infantry to a new line.

At midnight the French were holding a line near Murancourt and 800 officers and men from Paterson's Force were dismounted and ordered to support the French. A position was taken up between Chevilly and the near-by wood and was held until the French had established a fresh line close to Catigny. From then until March 27 Peterson's Force continued to do invaluable and heroic work with the French. On the 27th, the Canadian Cavalry Brigade detachment which had been with the Infantry joined the balance of the Brigade at Venette near Compiegne.

The dismounted party had helped to check the enemy onrush at Mennesis, Frieres-Faillouel, Bois de Genlis, and other points of the British line on March 22 and 23. On the 24th it was at Dampcourt in reserve to the Sixth French Corps, and the next day occupied a line running from Mondescourt-le-Bretelle-Appilly, and was assigned the task of covering an important bridge-head in the event of a further retirement.

The Brigade again came into action on March 28 in support of the French near Montdidier and at Mesnil St. Georges and Fontaine. The latter place was taken by Lieutenant Harvey, V.C., of Lord Strathcona's Horse, and he was awarded the French Croix de Guerre by the French general commanding the operations.

It then made a forced march to Guyancourt and went into action at Moreuil Wood on the morning of March 30. All regiments were engaged in this action, which succeeded in

driving the enemy from Moreuil Wood and stopping his advance in that sector, thus denying to him a vital position which would have given direct observation on Amiens.

An outstanding feature of this operation was the mounted attack around the flank of the wood carried out by Lieutenant Flowerdew, of Lord Strathcona's Horse, which won him the V.C. Unfortunately, this brave officer died from wounds received in the engagement.

Two days later, on April 1, the scene of operations for the Brigade was at Rifle Wood at Hourges. It had been decided to attack and capture the wood, a point of considerable strategical importance, and the 4th and 5th Imperial Cavalry Brigades and the Canadian Cavalry Brigade, all dismounted, were allotted the task. The plan called for the 4th Brigade to advance and swing to the left and form a flank, the 5th to seize the front edge of the wood, and the Canadian Brigade to go through the 5th and take the wood.

There was strong opposition as the Cavalry approached the wood, which was defended by machine guns. The wood, however, was penetrated, the Fort Garry Horse taking the left half, Strathcona's Horse the right half, the Royal Canadian Dragoons being in close support.

Hand-to-Hand Fight.—In the centre of the wood a fierce hand-to-hand fight ensued, in which the enemy was overcome and the Canadians succeeded in reaching their objective beyond the wood on scheduled time. They captured 121 prisoners and 13 machine guns.

During this time the Royal Canadian Horse Artillery Brigade, reinforced by the two R.H.A. Batteries, fought in support of the 24th Division through the whole retreat, and the Division afterwards stated that their successful fighting was largely due to the action of the Horse Artillery. Owing to its mobility the Horse Artillery were able to remain to the last moment, firing over open sights as the Infantry withdrew to successive positions.

This is the bare outline of a brilliant minor operation, but the importance attached to it was made clear by General Rawlinson, commanding the Fourth British Army, when two days later he visited the Brigade and thanked the officers and men for what they had done. The General said that he had asked the Infantry to take Rifle Wood, but was told that it could not be done without fresh troops. "Although I knew that you were very tired and had already done more than your share in the recent fighting," added the General, "I called upon you for the task, as I felt that there was no one else available who could do it successfully.

"I have asked that a cable be sent to Canada informing the people of your splendid deeds."

The Brigade "stood to" at Bois de Sencat until April 5, when it moved to near Amiens and remained there five days, when it was sent to Pernes in reserve to the Third Cavalry Division in action near Merville.

Early in May it was moved toward Albert to be on hand if an attack in that district developed. From then until July 4 it was doing duty in the trenches, but on that date acted as special reserve in the attack by the Australians on Hamel and Bois de Vaire.

It will be remembered that the French delivered a surprise attack in the Soissons sector with such force that the Germans (who had no doubt begun to conclude that the tide of war was flowing entirely in their favour and were busy carrying out pre-arranged plans elsewhere) were unprepared to resist.

It was while the French were exploiting their success that the British forces launched a big offensive in front of Amiens on a 20-mile front and for the first time in its career in France the Canadian Cavalry Brigade was detailed to assist the Canadian Corps.

This attack was made on August 8, and is known as the Battle of Amiens. A French Corps was on the right, the Canadian Corps on the left of the French, the Australian Corps and a British Corps extending northwards.

Co-operating with Tanks.—The Canadian Cavalry Brigade went into action at 9.15 on the morning of the attack on the Canadian Corps front in the neighbourhood of Ignacourt, captured Beaucourt, and took up a position east of that village astride the Amiens-Roye road. The village of Fresnoy was soon encircled and 125 prisoners captured.

During the day the Brigade did valuable work in co-operation with the Tanks in clearing the way for the Canadian Infantry to advance and established occupation in Beaucourt Wood and the village of Beaucourt.

On the 9th the Brigade remained in bivouac, but the following day was employed to seize the high ground north and west of

Roye in order to relieve the difficulties the infantry were meeting at Parvillers, and captured the village of Andechy for the French.

The Brigade did not go into action again until October 9. Then it was ordered to advance from the vicinity of Maretz and seize the high ground north-west of Le Cateau. When darkness came this ground had been taken, and patrols pushed into Le Cateau, Montay, Neuvilly-Inchy.

The Brigade's operations on that day extended on a front three miles wide and eight miles deep, yielded over 400 prisoners, several Artillery pieces and 100 machine guns, drove the enemy from six villages inhabited by French civilians and cleared the way for the Infantry to advance and consolidate the new territory. This was the Brigade's last action before the Armistice came into effect on November 11, although they were in pursuit of the enemy east of Ath on that date.

The personnel of the Brigade has had 82 mentions in despatches and been awarded 394 honours and decorations, including three Victoria Crosses. Two of the recipients of this decoration are living, namely, Major H. Strachan, of the Fort Garry Horse, and Lieutenant F. M. W. Harvey, Lord Strathcona's Horse. The other recipient was Lieutenant Gordon M. Flowerdew, of the Strathconas, who was killed in action. The Brigade also has the distinction of having been mentioned by name in despatches for five different engagements.

This narrative gives but a brief outline of the outstanding achievements of the Canadian Cavalry Brigade in the war, but it is sufficient to show that the Canadian Cavalry has fought with much distinction and success.

The total strength of the Canadian Cavalry Brigade in France on November 11, 1918, was—

Officers Other Ranks	• •	 	• •	141 2,719
TOTAL		 		2,860

The total strength of the Canadian Cavalry Forces in England on November 11, 1918, was—

Officers			 	37
Other Ranks	• •	• •	 	1,120
Total			 	1.157

Canadians in the Royal Air Force.

As the Canadian Corps has made history on land, so have Canadians gained renown in the air. While, until recently, there has been no distinct Canadian Air Force, yet from the very commencement of the war Canada has contributed in large measure to the personnel of the British Flying Forces. More particularly has this applied to the supply of officers, both pilots and observers, and it will, no doubt, be a matter of surprise to many to hear that over 8,000 Canadians have held commissions in the Air Forces. When it is remembered that the Air Forces are peculiar, in that the burden of the fighting and the danger falls almost entirely on the officers, it will be realised that this is a record of which Canada can well be proud. By nature Canadians seemed to be especially endowed with the faculties and temperament necessary to success in the air, because in it they undoubtedly found themselves in a congenial element, and went forward from success to success, till the names of our foremost fighters have become household words. This success has been attributed to the conditions under which the average Canadian has been brought up. His life, or at least a part of it, has been spent in the open, on the lakes and rivers of the east, in the mountains of British Columbia, or on the prairies of the west. He has lived under conditions which trained mind and muscle to act quickly and decisively, and this training stood him in good stead in the air. Perhaps it was that, during his earlier boyhood, he had been accustomed to wide spaces and had thus unconsciously been prepared for the vastness of the sky. Whatever the cause, the Flying Service appealed strongly to the individualistic character of the Canadian, and in that Service he was an outstanding success.

It is difficult to ascertain the number of Canadians who have been in the Royal Flying Corps, the Royal Naval Air Service, and later the Royal Air Force, at any given date, for the reason that they have entered these Services through so many different channels.

They have, however, entered through three main channels. First, officers were seconded to the Air Forces from the Overseas Military Forces of Canada. These officers still remained Canadian officers, although so seconded, and were liable to recall, if necessary. Second, non-commissioned officers and men were discharged

from the Overseas Military Forces of Canada for the purpose of entering the Royal Air Force. This they did in large numbers, receiving commissioned rank in it as soon as they qualified. Third, a very large number of cadets were enlisted by the Imperial Authorities in Canada. At no period were these latter under the direction of the Overseas administration, but were in the same position as if they had enlisted in England.

The following statement shows the numbers of Canadians who have entered the Royal Flying Corps, the Royal Naval Air Service, or the Royal Air Force in the manner indicated:—

1. Officers seconded or attached to the	
R.F.C., R.N.A.S., and R.A.F. up to	
December 31, 1918	1,239
2. Other ranks of the Overseas Military	
Forces of Canada transferred to the above	
from June 1, 1916 to December, 31, 1918	2,721
3. Cadets enlisted in Canada by the	
Imperial Authorities and despatched	
to the above Services	4,280
Total	8,240

In addition to the above a number of other ranks, who subsequently received commissioned rank, were transferred to the Royal Air Force prior to June 1, 1916, but the exact figures are not known. Also a certain number of Canadians came over at their own expense to England and joined the Flying Services, while a certain number who came over to join British Regiments have also subsequently transferred to the Royal Air Force.

At the date of the Armistice there was a large number of cadets in course of training in Canada who, as a consequence of the Armistice, did not come Overseas. There were also a very considerable number of other ranks employed in Canada by the Royal Air Force, and although it is impossible to give exact figures, there have been in the Air Force probably well over 13,000 Canadians of all ranks.

Those mentioned in the first category of the above statement have been issued with pay from Canadian funds; those mentioned in categories two and three are paid by the Imperial Authorities. There have also been a number of Canadians who have served in the ranks in the Air Forces in England and France, amounting to approximately 350.



Canadians were famous as pilots and observers in the Royal Air Force. These are the Officers of a brilliant Fighting Squadron.



Although the Royal Air Force was entirely under the direction of the Imperial Authorities, yet, in view of the large percentage of Canadians included in its personnel, it was felt by the Minister that it was proper that some action should be taken to recognise their Canadian identity, and to ensure that a record of Canadians in the Royal Air Force and of their exploits should be kept.

Accordingly negotiations were entered into with the Secretary of State for the Air as a result of which the following arrangement was come to:—

- 1. The Royal Air Force agreed to furnish the Minister with a Nominal Roll of Canadians in the Royal Air Force, and to advise him from time to time of all accretions to and deductions from it.
- All Canadians in the Royal Air Force were to be permitted to wear a Canadian badge either on their shoulder straps or on their sleeve.
- 3. It was agreed to give Canadians representation on the Royal Air Force Headquarters and Staff.
- 4. A monthly statement of the exploits of Canadian Airmen was to be furnished to the Minister, with a view to its dissemination to the Canadian public.
- 5. It was agreed in principle that Canada should have a Flying Corps of her own, which, while distinct in its organisation and administration, would form part of the Royal Air Force for the purpose of operations in the Field.

As a result of the above the position of Canadians in the Royal Air Force was put on a basis more satisfactory to the Canadian public, as well as to the officers themselves. It will be observed that the question of forming a separate Canadian Air Force was taken up at this time, and certain proposals agreed to. The Section succeeding this deals with that subject.



Canadian Air Force.

In 1918 the question of forming a Canadian Air Force, distinct from the Royal Air Force, occupied the attention and received the careful consideration of the Minister. to this year, for various reasons, it had not been considered in the best interests of Canada or the Empire as a whole to enter on a separate programme in this connection. As the war proceeded, and as it became apparent that a Flying Corps would be an essential and important part of any Canadian post-bellum military organisation, as well as likely to have a considerable influence on the development of commercial aeronautics in Canada after the war, it was resolved to take such steps as were necessary to provide Canada with, at least, a nucleus of such an organisation. It was fully realised that any such Force must of necessity be confined within small dimensions, because any attempt to withdraw Canadian personnel from the Royal Air Force in large numbers would have had a most prejudicial effect on the efficiency of that Force. Further, the expenditure involved in the maintenance of a large Air Force would have been very great.

As mentioned in the last Section, this matter had been the subject of discussion between the Minister and the Secretary of State for the Royal Air Force in the early part of 1918, and it had been agreed in principle between them that Canada should have a Flying Corps of her own. This was immediately followed up by further negotiations, and a memorandum setting out tentative arrangements for the organisation of a Canadian Air Force was drawn up between the Minister and the Secretary of State for the Royal Air Force, and definitely settled July 8, 1918. This memorandum was later embodied as part of the Order in Council which, subsequently, confirmed the agreement.

The provisions of the Order in Council were substantially as follows:—

(a) That authority be granted for the formation of a Canadian Air Force and of Service Units of such Air Force in accordance with the terms of the memorandum marked "A," which memorandum had been approved by the Secretary of State of the Royal Air Force.

- (b) That further Service Units of said Canadian Air Force be formed from time to time as and when the same might' be approved by the Minister of Overseas Military Forces of Canada and the Secretary of State for the Royal Air Force.
- (c) That the Canadian Air Force form a part of the Overseas Military Forces of Canada and be subject to the provisions of the Militia Act of Canada.
- (d) That the Canadian Air Force be under the same establishment as may from time to time obtain in the Royal Air Force.
- (e) That the Minister of Overseas Military Forces of Canada be empowered from time to time to take any and all action that he might deem necessary for the formation, extension, organisation, and administration of the Canadian Air Force.

Provisions of Memorandum.—The memorandum referred to provided *inter alia*—

- 1. That the formation of two Canadian Air Squadrons should be proceeded with forthwith.
- 2. That these Squadrons should be organised in England by the Overseas Military Forces of Canada in conjunction with the Royal Air Force.
- 3. That the type of Unit and equipment should be decided by the Air Council.
- 4. That the personnel of the Squadrons should be drawn as follows:—
 - (a) Officers. From officers of the Overseas Military Forces of Canada who are seconded to the Royal Air Force and who were recommended by the Air Council; and from officers of the Royal Air Force who were Canadian citizens and who are available and recommended for release by the Air Council, such released officers to be replaced at once by Overseas Military Forces of Canada.
 - (b) Other Ranks. By the transfer of other ranks of the Royal Air Force who were Canadian citizens and who can be released by the Air Council; and by enlistment, or transfer from other Canadian Services of men with suitable qualifications.

- 5. That the Canadian Government should assume responsibility for assisting in the formation of the Squadrons by the provision of necessary personnel and for the pay and allowances of such personnel, as well as for the supply and reinforcements for Service Squadrons.
- 6. That the Air Council (Imperial) should assume the responsibility for the command and administration of the Canadian personnel when in a theatre of war or under training in Great Britain, and for the provision, maintenance, and replacing in all cases of machines, tools, technical equipment and supplies necessary to maintain the said Forces; further, it was to be responsible for the necessary training facilities.

Organisation.—In accordance with the above a Canadian Air Force Section of the Canadian General Staff was created for the purpose of carrying out the organisation of the Squadrons. Steps were taken to procure the necessary personnel in accordance with the provisions of the memorandum, and a selection of officers was made, representative of the best traditions Canadian aerial fighting. The other ranks were selected from Units of the Overseas Military Forces of Canada, special attention in the selection being paid to their civil occupation, so that the men most suited to mechanical work might be obtained. The types of Squadrons decided upon were a single-seater Scout Squadron and a day Bombing Squadron. These were organised in England, and when organised went into quarters at Upper Heyford, near Oxford. It was, of course, intended that these Squadrons should be trained and sent to France to take their place in the field as fighting Units.

Training.—Their training proceeded along the lines necessary to prepare them for that purpose, but as a result of the signing of the Armistice they were not required in France and their training was then specially directed to fit them for post-war flying, and to giving them instruction in other branches of aeronautics likely to prove beneficial to Canada in the future. Special attention was paid to wireless training, photographic training, aerial geographical training and cross-country flying. In addition, steps were taken to complete the organisation of the Canadian Air Force so that, though small, it might provide a fully-developed organisation on which might be based any future organisation in Canada.

To effect this the following establishment has been authorised:

- i. A Director of Air Service, who will be the Officer Commanding the Canadian Air Force and will advise the General Staff on matters relating to it. He will have to assist him in his duties a Staff Captain, and a Staff Lieutenant along with four other ranks.
- ii. A Wing Headquarters consisting of a Lieutenant-Colonel, who will have command of the two Squadrons, and who will have to assist him in his duties a Captain for administration, a Captain for technical duties, and a Lieutenant for armament along with five other ranks.
- iii. No. 1 Squadron (a Scout Squadron) consisting of 18 aeroplanes commanded by a Major with three Captains, Flight Commanders, and 18 Flying Officers of the rank of Lieutenant. In addition, one administrative and one technical Lieutenant are provided for. The other ranks for this Squadron total 159.
- iv. No. 2 Squadron (a Day Bombing Squadron) consisting of 18 aeroplanes with one Major Commanding, three Captains, Flight Commanders, 18 Flying Officers with three additional officers and 160 other ranks.
- v. A Technical and Supply Branch consisting of a Head-quarters, Technical Branch and a Supply Depôt. The work of this Branch is described in part in the Section which follows—the Bureau of Aeronautical Information established in the summer of 1918 having been absorbed into this Branch.

Present Equipment.—The following equipment has been secured without charge for the Canadian Air Force in the manner indicated.

Aeroplanes.—

Presented by the Imperial Air Fleet Com-	
mittee	3
Presented by the Overseas Club and Patriotic	
League	16
German aeroplanes in serviceable condition	
allotted by the Air Ministry	40

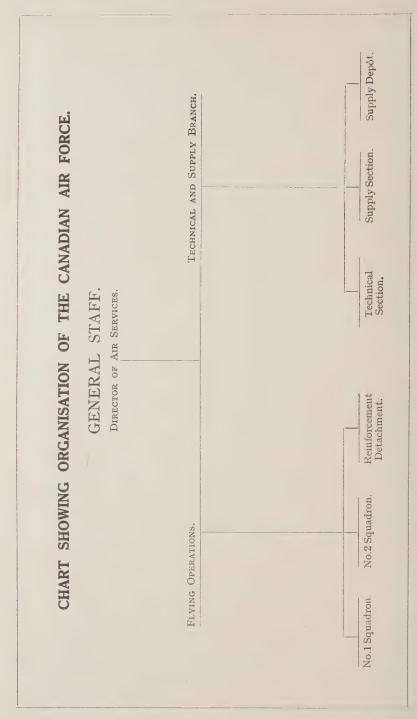
In addition 50 Curtis machines have been presented to the Canadian Government by the Imperial Munitions Board, giving altogether a total of 109 machines available for the Canadian Air Force when it returns to Canada.

Bureau of Aeronautical Information (now absorbed in Technical and Supply Branch of Canadian Air Force).

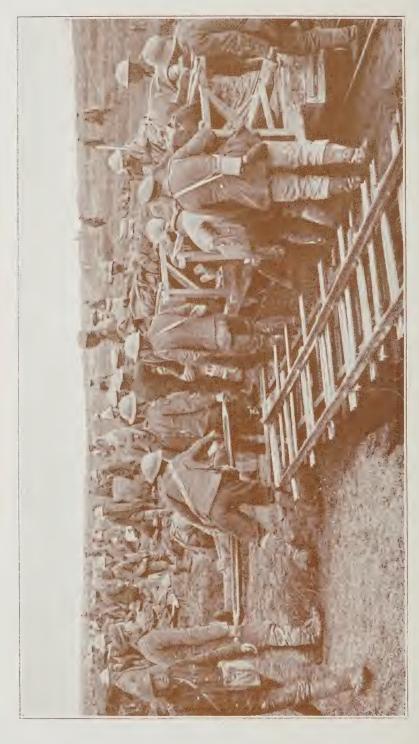
In the summer of 1918 a small section was formed known as the Canadian Bureau of Aeronautical Information. It is now absorbed in the Technical and Supply Branch of the Canadian Air Force. Its object was and is to collect all available technical information regarding the development of aeronautics during the war, both from Allied sources, and where possible from enemy sources.

It was seen that there was a large amount of valuable information on this subject, which could be collected during the progress of the war, but which would not be so easily obtained once peace had been signed and the aerial forces of the allies completely demobilised. The work done consists of the collection and filing for future reference of drawings, plans, specifications, and all other technical information and data regarding aeroplanes, engines, accessories, and aircraft equipment in general. This information should be invaluable to Canada after the war, not merely from a military point of view, but for the purpose of the aeronautical development generally, which will, without doubt, become a matter of great importance in the future.

To achieve the objects of the Bureau, it entered into arrangements with the Air Ministry whereby its representatives are allowed free access to the Technical Departments concerned, in order to make known its requirements, and to obtain any documents, publications, drawings, etc., which may be considered of value. In addition, a few officers have been sent on missions to France and Italy, to gather as complete information as possible regarding aeronautics in these countries. Plans are on foot for the purpose of coming to an arrangement with the Air Ministry under which future aeronautical students from Canada may receive their final training as aeronautical engineers at the leading aeronautical establishments in the United Kingdom.







This Canadian Light Railway, built across Vimy Ridge, was used for transporting wounded to the rear. German prisoners taken that day were glad enough to assist.

9

Canadian Railway Troops.

The story of the Canadian Railway Troops is one of the romances of the war recording how one Battalion of Canadian Railwaymen grew into a Corps of nearly 16,000 strong, which from the Spring of 1917, took a major part in the construction and maintenance of railways of all gauges to within easy reach of the Front Line. After the Battle of the Somme, it was clearly proven that road and animal transport could not alone bring forward in the fighting zone over shell-torn terrain, the weight of war material (as much as 2,000 tons per mile of active front per day) required to stage a modern battle.

In the early stages of the War, the French General Staff assumed the entire responsibility for the maintenance and construction of railways, in the zone of the British Armies on the Western Front. Though six Imperial Royal Engineer Railway Construction Companies were sent to France in 1914, they were not permitted by the French to do any, or scarcely any, work until it was recognized that the duration of the War would be indefinitely prolonged, and the French Government would be unable to furnish either sufficient Railway Construction personnel or material.

In 1914, some well known Canadian railway contractors requested the Department of Militia and Defence to be allowed to raise a Railway Construction Unit, but for reasons outlined in the preceding paragraph, this proposal was not approved.

However, in the Spring of 1915, the War Office requested the Canadian Government to send over two Railway Construction Companies. These, the Canadian Pacific Railway Company undertook to organize at the request of the Department of Militia and Defence with the result that the Canadian Overseas Railway Construction Corps proceeded to France in August, 1915.

This Unit was made up of 500 picked men from the construction forces of the Canadian Pacific Railway. Each man before enlisting was required to pass a test as to his technical ability before he joined the unit which was the pioneer Canadian Railway Construction Unit in France.

AA2

After personal representations had been made to several Departments of the War Office, it was finally decided in May, 1916, to ask the Dominion to furnish another Unit of approximately 1,000 strong for railway construction work on the Western Front.

Reorganized Transport Service.—The organization of this Battalion fell to Major-General J. W. Stewart, C.B., C.M.G. (then Lieutenant-Colonel), who gathered recruits from among the experienced railway workers of every Province in the Dominion. It was known as the 239th Overseas Railway Construction Corps, but before it could sail, General Stewart was called to England, at the request of the War Office, to assist in the general organization of better transport facilities on the Western Front.

As outlined above, after the commencement of the Battle of the Somme, it was decided by the Imperial General Staff to make greater use of railways, and more especially of light railways in forward areas as used by both the French and Germans. To accomplish this, Sir Eric Geddes was appointed Director-General of Transportation, with practically plenipotentiary powers to re-organize all the transportation services on the British Western Front.

As during recent years more new railways have been built in Canada than in any part of the British Empire, Sir Eric Geddes naturally looked to Canada for a man to supervise and direct the construction of railways.

It was agreed that Canada should furnish five Battalions of construction men to be known as the Canadian Railway Troops, and that Major-General (then Lieutenant-Colonel) Stewart should proceed to France immediately to act as Deputy Director of Light Railways as well as being in immediate command of the Canadian Railway Construction Battalions on their arrival in France. Colonel, then Lieutenant-Colonel, Angus McDonnell, C.M.G., was delegated to remain in England to organize the units and to follow Major-General Stewart as Second in Command on the completion of the organization.

On Jan. 1, 1917, Major-General Stewart (then Brigadier-General) was appointed Deputy Director General Transportation (Construction) and made directly responsible to the Director General of Transportation for all railway construction, the maintenance and provision of necessary material, thus having supervision of the work done by the Royal Engineers'

Railway Construction Companies (at this time numbering 5,312 all ranks), in addition to that done by the Canadian Railway Troops, as well as direct administrative command of the latter.

An administrative office to deal with the organization was set up in London, and a depot established at Purfleet, Essex.

The original five Battalions were made up as follows:—

The 1st Canadian Construction Battalion which had proceeded to France on Oct., 1916, and at that time (Nov. 11, 1916), was working on standard gauge railways, was re-organized and re-equipped as the 1st Battalion Canadian Railway Troops in France.

The 127th Infantry Battalion, then at Bramshott, was re-organized as the 2nd Battalion Canadian Railway Troops, proceeding to France Jan. 11, 1917.

The 239th was re-named the 3rd Battalion Canadian Railway Troops, and went to France on March 22, 1917.

The 4th and 5th Battalions were organized at Purfleet, and proceeded to France in Feb., 1917.

However, before the 3rd Battalion left for France on March 22, it had been decided to increase the number of Battalions to 10, and as more units arrived from Canada, they were sent to Purfleet. So swiftly was the new organization carried out, that by April 1, 1917, there were six Canadian Railway Troops Battalions fully equipped and serving in the Field. All 10 Battalions were at work on the British Western Front by the end of June of the same year.

The greater number of the Units were employed on light railway construction and maintenance, and with the help of attached labour since 1917, all the light railway construction and maintenance, on the British Western Front until the Armistice was signed, was carried out by Canadian Railway Troops.

The whole Canadian Railway Troops organization was separate from the Canadian Corps. The administrative Head-quarters of the Canadian Railway Troops were established at General Headquarters of the British Armies in France in March, 1917, to enable Major-General Stewart to fill the dual capacity of General Officer Commanding the Canadian Railway Troops, and Deputy Director of General Transportation (Construction).

Just in Time.—The Railway Troops, indeed, arrived in France just in time to prove their worth. During the German retreat on the Somme, in February and March, the first of the

Battalions to arrive were able to push forward standard gauge and light railway lines with surprising rapidity in spite of the obstacles and difficulties imposed by atrocious weather and the thoroughness of the destruction left by the enemy in the wake of his retreat.

On the 9th of April, 1917, began the Battle of Arras, when the Canadians attacked and captured Vimy Ridge, then the strongest German fortress on the Western Front. For several weeks prior to the opening of the attack the weather had been extremely bad and the ground in the battle area was like a quagmire. Notwithstanding this, the Canadian Railway Troops had laid steel to within a short distance of the front line.

Then, as soon as the Infantry advanced on that memorable Easter Monday, the Railway Battalions constructed new lines on the heels of the fighting men. Supplies and ammunition were carried forward on standard and light gauge lines, and the wounded were evacuated over them to the very doors of the Field Ambulance Dressing Stations and the Casualty Clearing Hospitals. It was the first time that such work had been accomplished during the War.

Within a week of the opening of that Arras offensive, trains were running to the brow of Vimy Ridge, and by the end of April, by which time the British lines had been pushed for some distance across the level plain stretching beyond the Ridge, light railways were running forward as far as the Battalions' ration dumps.

The next big Offensive in 1917 was at Messines, and there the Railwaymen from Canada contributed their quota to success, in spite of interruptions caused by enemy shell fire, the almost impassable sea of mud which they were compelled to cross, and the many other obstacles that beset the path of railway construction on the battlefield—obstacles that are unknown to the civilian railroad worker. Nor were the Railway Troops less determined and successful during the final attack at Passchendaele, in which the Canadian Corps again won undying fame under conditions among the most trying and exasperating encountered during the War.

Task at Ypres.—The difficulty of the task set the Canadian Railway Troops in the Ypres salient may be gauged from the fact that during more than two months of the Summer of 1917, the average daily number of breaks in the light railway lines due to enemy shell fire, was about 100 in the areas of the 2nd and 5th British Armies alone.

It was in March, 1918, when the German Offensive began in the Somme sector, that it unfortunately became necessary to leave many miles of standard and light gauge railways in the hands of the enemy. Seven Battalions of the Corps of Canadian Railway Troops had to be withdrawn from railway work and were employed for a time on the construction of a rear defence trench system. In this work, which was carried out under the direction of Major-General Stewart, they were assisted by 20,000 troops from Labour, Engineer, Road and other technical Units. When the task was completed, they had built a defensive trench system on a front over 30 miles, with a total trench mileage of approximately 120 miles. In addition many strong points and machine gun emplacements were built and the whole front protected with thick belts of wire.

In addition to this work the railway system was being altered and lines added so that, if the position became still more serious, supplies and material could be handled with greater despatch and convenience. Nor was this all. On the southern part of the Front, a point where the German thrust had been most successful, the Railway Troops were kept busy on the reorganization of the Lines of Communication.

As Fighting Men.—The months of March and April, 1918, were indeed eventful for the Corps of Canadian Railway Troops, for not only did the situation strain their wonderful adaptability to the utmost, but it threw out a direct challenge. There arrived a moment when it became necessary for the Canadian Railway Troops suddenly to transfer themselves into fighting men.

They met the challenge with a skill and a success which proved the wisdom of the policy insisted on by the Canadian Military Authorities—that every Canadian at the Front engaged on work of a technical nature, should first be trained as a soldier.

It was during the last four days of March, when the enemy was advancing on Amiens, that one Battalion of the Corps of Canadian Railway Troops was called on to take part in the defence of the city. The Railwaymen promptly organised 16 Lewis Gun teams and held tenaciously to the position allotted them until relieved by troops from the New Zealand Division. Again, in the First British Army area, three of their Battalions were organised into what was called the Canadian Railway Brigade. No sooner, however, had they been so formed, than the importance of engineering again became such a paramount consideration that the Canadian Railway Brigade, which had

been organised with every intention of making use of it as a fighting force, had to be disbanded. Two Companies, however, from still another Railway Battalion, were put into the Line and did very good work until relieved by Imperial troops.

In the meantime, the number of battalions had been increased to 13 by the conversion and re-organization of the 2nd and 3rd Canadian Labour Battalions with the 11th and 12th Battalions Canadian Railway Troops respectively, and the formation of the 13th Battalion from personnel at the depot at Purfleet, England.

Later in the Spring of 1918, the Germans launched an Offensive in two sectors in the north, with the intention of reaching the Channel Ports. This, too, placed a considerable strain on the Corps of Canadian Railway Troops as they were at once put to work on the construction of broad gauge lines and the elaboration of the light railway system which acted as a feeder to the front line trenches.

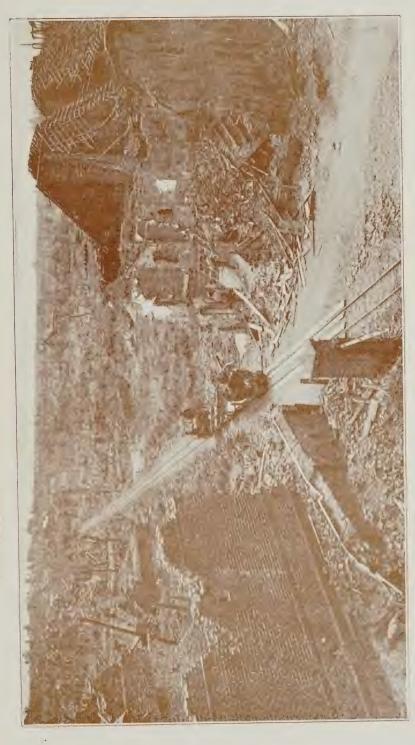
In the early Summer of 1918, the Canadian Overseas Railway Construction Corps, the 58th Broad Gauge Operating Company, the 13th Light Railway Operating Company, the 69th Wagon Erecting Company, and the 85th Engine Crew Company were brought under the Headquarters, Canadian Railway Troops, and the whole formed into the Corps of Canadian Railway Troops.

About the same time Major-General Stewart was appointed Director of Construction, and as such his duties embraced all construction of a civil engineering character in the zone of the British Armies.

This work continued until the end of July, and at the beginning of August, preparations were being made by the Railwaymen for the work which would be required of them in the attack by the Allies on a 20-mile front beyond Amiens.

Amiens.—The achievements accomplished by the Corps of Canadian Railway Troops in that battle formed a brilliant chapter in their career, and from then on the Railwaymen continued to lend invaluable aid in the successive offensives which, launched on different parts of the front, finally led to the victory.

In this record, mention should not be omitted of the fact that during the offensive in Palestine in the Summer of 1918, when General Allenby called for a party of expert bridge builders, the War Office requisitioned the services of Canadian Railway Troops. Six officers and 250 other ranks were thereupon selected from among the volunteers who came forward in France, and left for Palestine on Sept. 20, 1918.



There was practically no point on the Western Front inaccessible to the Canadian Light Railways. This scene is typical of the desolution through which their tracks were laid.



It should be added that many officers were seconded from the Canadian Construction Railway Troops to fill executive positions in different departments under the Director General Transportation which should be considered as a high tribute to the technical efficiency of the officers concerned and the Corps of Canadian Railway Troops as a whole.

Below is given a table showing the comparative strength of the Imperial and Canadian Railway Construction Forces on the Western Front as at the dates given:—

+							
Date.			Nominal Strength. Imperial Railway Construction Troops.	Nominal Strength. Canadian Railway Construction Troops,			
Dec. 31, 1914			1,476				
Dec. 31, 1915			2,440	512			
Dec. 31, 1916			4,900	1,617			
Jan. 30, 1917			7,340	11,562			
Dec. 31, 1917			7,340	13,772			
Nov. 11, 1918			7,340	14,877			

In addition there were four Canadian Railway Troops Operating Companies with a strength of 1,087, all ranks on November 11, 1918.

The total strength of Canadian Railway Troops in England on November 11, 1918, was 3,364.

During their career at the front, the personnel of the Corps of Canadian Railway Troops were awarded 489 honours and decorations.

The Construction Units of the Corps of Canadian Railway Troops were more mobile than any other construction Units on the British Front, as their establishment provided for 280 mules, 10 lorries and 8 box cars per unit. They also were able to carry out new construction with great rapidity by using scrapers and mules, thereby saving man power, one of the most important questions in the concluding phases of the compaign.

In this necessarily condensed report, it is impossible to give more than the briefest outline of the organization, functions and operations of the Canadian Railway Troops. The importance of the work assigned to them can easily be understood by anyone with only a rudimentary knowledge of warfare, as since prehistoric times, mobility has been recognized as an essential factor to victory. The career of the Canadian Railway Troops on the Western Front furnishes one of the most engaging chapters in the record of Canada's contribution in the War, and was a factor in helping to spell victory with a capital V.

SUMMARY OF WORK DONE BY THE CORPS OF CANADIAN RAILWAY TROOPS DURING THE YEAR 1918. Broad Gauge Lines.		Average Number Other Ranks, ** C.R.T., Daily on Maintenance.	266		Average Number Other Ranks, C.R.T., Daily on Maintenance.	2166
		Average Number Attached Labour Daily on Construction.	Attached Labour Daily on Construction.	9	Average Number Attached Labour Daily on Construction.	3288
	Average Number of Miles Maintained Monthly.	154 · 18	VES.	Average Number of Miles Maintained Monthly.	546.81	
	Miles Track Laid.	1038.00	NARROW GAUGE LINES.	Miles Track Laid.	823.79	
	Miles Grade Repaired.	838 · 52	NARI	Miles Grade Repaired.	385 · 76	
	Miles Graded.	369.65		Miles Graded.	722.37	
		Miles Located.	211.28		Miles Located.	1494.19

Canadian Forestry Corps.

MEN WHO SAVED THE TIMBER SITUATION FOR THE ALLIES.

Formation of the Corps.—When in February, 1916, the problem of the shortage of ships, increased by the ever-growing demands of the Allies, engaged the still more urgent attention of the British Government, the British Authorities deemed it necessary to issue a Proclamation restricting imports. Timber, of which over six million tons was imported by Great Britain in 1916, was one of the commodities especially designated for substantial reduction.

Mr. Bonar Law, then Secretary of State for the Colonies, therefore cabled to the Governor-General of Canada, to the effect that His Majesty's Government would be grateful if the Canadian Government would assist in the production of timber for war purposes, and asked if a Battalion of lumbermen could be recruited quickly and sent Overseas to exploit the forests of Britain.

The 224th Canadian Forestry Battalion was thereupon organised without delay, and in April the first draft of the Battalion landed in England. Early in the following month it was producing sawn lumber at Virginia Water Camp, Surrey. That is to say, in less than three months from the date the British Government sent its first request to Ottawa, the 224th Battalion was recruited, despatched to England with its machinery, had built its first mill, and delivered lumber to the Imperial Authorities. Other detachments were operating in various places in England and Scotland, and the eventual strength of the battalion was 1,609 all ranks.

The 224th Battalion was the nucleus of the substantial force of Canadian lumbermen which followed, and later formed the Canadian Forestry Corps, a Corps that by its zeal and ingenuity extended the exploitation of the timber resources of Great Britain and France, furnishing timber for four Armies—those of Britain, France, Belgium, and the United States, thus materially contributing to the attainment of Victory.

Soon after the arrival of the 224th Battalion the Dominion Government received another cable from the Secretary of State for the Colonies, stating that His Majesty's Government desired to express keen appreciation of the action of the Canadian Government in raising the 224th Battalion, but that the shortage in the supply of timber was still causing serious concern, and that

the acute shortage of transportation necessitated a more rapid exploitation of the timber reserves of the Allied Countries. The French Government had placed certain forests in France at the disposal of the British Authorities, and the cablegram concluded: "His Majesty's Government again turns to Canada for assistance." The formation of the 238th Canadian Forestry Battalion, which arrived in England in September, 1916, was the immediate answer to the appeal.

In the meantime the forests in France offered for exploitation, had been inspected and reported on favourably, and it was decided to extend the Canadian Forestry operations to the Western Front.

Authority was granted in October, 1916, for the formation of the Canadian Forestry Corps, and Major-General Alexander McDougal, C.B. (then Lieut.-Colonel Commanding the 224th Battalion), was appointed in Command of the Corps and Canadian Director of the Timber Operations for France and Great Britain. The two Forestry Battalions in England at the time then became a part of the Corps, and it was arranged that all Forestry Units and details on arriving in England from Canada, should be absorbed by the Canadian Forestry Corps.

Following the organisation of the Corps, arrangements were made at once for the purchase of sufficient machinery and equipment in Canada for saw mills, etc., to employ at least 10,000 men. This policy was later proved to be an exceptionally wise one, for the shipping problem becoming more and more perplexing, the British Prime Minister announced that still further reductions in imports were absolutely imperative. He declared that timber imports would have to bear 60 per cent. of the total reduction decided upon, as three and a half million tons of shipping could thereby be saved.

In the interval of the few weeks that elapsed between the British Prime Minister's announcement and the putting into effect of the new regulations, some of the Canadian machinery had been delivered in England and the remainder was on the water en route. Had it not been for the expeditious action of the Canadian Authorities it is estimated that there would have, unquestionably, been a serious delay in the delivery of the machinery.

Operations in France.—By December, 1916, there was a small force of the Canadian Forestry Corps operating in France at Bois Normand. This was the advance guard of the big force soon to follow.

The first headquarters were at Conches (Eure). Here Group Headquarters, divided into two districts, were subsequently established. By June, 1918, there were three other groups operating, one known as the Jura Group, one as the Bordeaux Group, and the other as the Marne Group, each with two District Headquarters. The work of the Corps extended over a wide area of France, reaching out almost to the frontiers of three countries—Spain, Switzerland, and Germany. The Corps Headquarters for France were established at Paris-Plage, not far from Boulogne. There was an office in Paris, which served as a connecting link between the various District and Group Headquarters. The Corps Supply Depot for Technical Equipment was at Havre.

When hostilities ended there were 56 Companies working in the war zone on the Western Front, of which 13 were German Prisoner of War Companies, with a combined strength of 19,162. Five of the Canadian Companies were then engaged exclusively on technical work for the Independent Air Force, and two for the Royal Air Force. This work consisted of clearing sites and effecting the necessary grading, levelling, and draining, in short, preparing the aerodromes completely with the exception of the erection of the hangars.

That the work of the Canadian Forestry Corps was appreciated by the Independent Air Force is attested by the following letter sent to the General Officer Commanding the Canadian Forestry Corps, from the Secretary of the War Office, dated October 21, 1918:—

"I am commanded to inform you that it is with great pleasure that the Army Council learns from the Secretary of the Air Ministry that a letter conveying high appreciation of the work done for Independent Air Force by your Corps has been sent to you on the 12th inst."

A similar appreciation was received from the Royal Air Force.

In all the operations in France, Canadian methods were, as far as possible, applied in the exploitation of the forests, but the best means of transporting logs from the woods to the mills, and the finished product to the distributing centres, constituted difficult problems to solve. Waterways, rivers, and lakes are not so numerous in France as in Canada, nor so conveniently linked together, consequently the Canadian Forestry

Corps had to build elaborate systems of broad and narrow gauge railways in almost every zone of its activities.

Winter Methods.—In the mountainous districts of the Jura and Vosges, however, the temperature and snowfall in the winter months were about the same as in Northern Ontario, so that Canadian methods were adopted to carry on the work in these forests during the winter weather.

But the operations of the Canadian Forestry Corps in France were by no means confined to stationary camps a long way in the rear of the front line. Frequently companies had to establish mills in woods, or small limits, within a very short distance of the forward positions in order to meet an urgent demand for material at some particular point. Often, too, the work was carried out at considerable risk to personnel and equipment, and the quick transfer of portable mills had at times to be made. The record transfer was in the case of a mill where the last log was sawn at 9 o'clock on the day the move was to take place. By 7 o'clock the next day the mill had been transplanted to a wood over three miles away, and was busily operating. The following day the product exceeded 18,000 ft. (board measure), and the day after the total output was 23,000 ft., much more than the guaranteed capacity of the mill.

The largest output by any one company in a permanent camp was registered in the Jura Group, when a total of 156,000 ft. (board measure) was cut in 10 hours in a mill which was only registered to turn out 30,000 ft. in that time.

That Sir Douglas Haig soon appreciated the work of the Canadian Forestry Corps is shown by the following extract from his despatch on 25th December, 1917:—

"By September, 1917, the Army had become practically self-supporting as regards timber, and during the active period of working, from May to October, over three-quarters of a million tons of timber were supplied for the use of the British Army. Included in this timber was material sufficient to construct over 350 miles of plank road and to provide sleepers for 1,500 miles of railway, beside great quantities of sawn timber for hutting and defences, and many thousand tons of round timber, fascines and fuel. The bulk of the fuel wood is being obtained from woods already devastated by artillery fire."

This tribute from the Commander-in-Chief applied most emphatically to the Canadian Forestry Corps Forces in France, as they were producing the larger percentage of the total timber output in the country.

Tribute from Americans.—After the Armistice, Colonel Woodruff, who was one of the Chief Forestry Officers of the United States Army in France, wrote as follows:—

- "We wish to express our appreciation to the Canadian Forestry Corps for the excellent co-operation and assistance they have given the Americans in the Vosges, at Besancon, in the Landes, and, in fact, all over France.
- "They have secured for us five complete saw-mills.
- "In addition to the above, the Canadian Forestry Corps have repeatedly loaned equipment to the American Forestry Troops, and have extended invitations to them to join in all of their sports and entertainments, and have co-operated in the matter of policing near-by towns, and in every manner assisted to the fullest extent.
- "The American Forestry Troops are also indebted to the Canadian Forestry Corps for the use of their machine shops to make repairs to broken parts of the American mills, and for promptly furnishing lumber for building barracks on the arrival of the Americans at a time when it was most important that shelter be provided for the Troops.
- "We wish to bring this matter publicly before the meeting, and I am pleased to thank General McDougall on behalf of the American Expeditionary Forces."

The appreciation of the French Authorities for the work of the Canadian Forestry Corps is exemplified by the following extract from a letter written by the French Conservation of Waters and Forests:—

"I wish particularly to thank the Canadians for all they have done in order to assist us. Most of the Canadian Companies have given us half of their output, and this has been of great importance in the war. They have executed very difficult work for aviation timber in the Jura where the Labergement Mill has been a very remarkable installation."

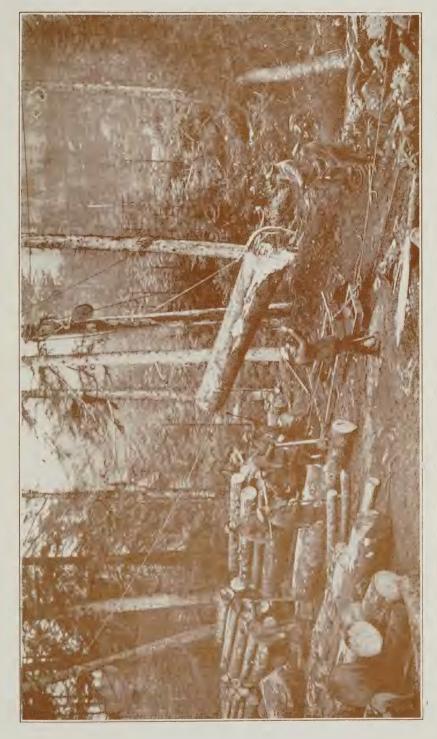
Administration in France.—Owing to the scattered nature of the Forestry Corps and the various Commands in which its companies were operating, it was often difficult to adopt strict Army procedure in regard to administration. As a result a number of administrative problems had to be solved as best they could be in relation to such varied questions as the handling of a special hospital service for the Corps, the proper administration of discipline for men who were not trained soldiers, and the adjustment of rations to the needs of men who were doing ten hours' hard manual labour a day.

The spirit of the entire Corps, however, was but encouraged by difficulties. The morale of the men was always very high. A great many companies were frequently under fire, and those further back constantly made requests to be sent up to the Army area.

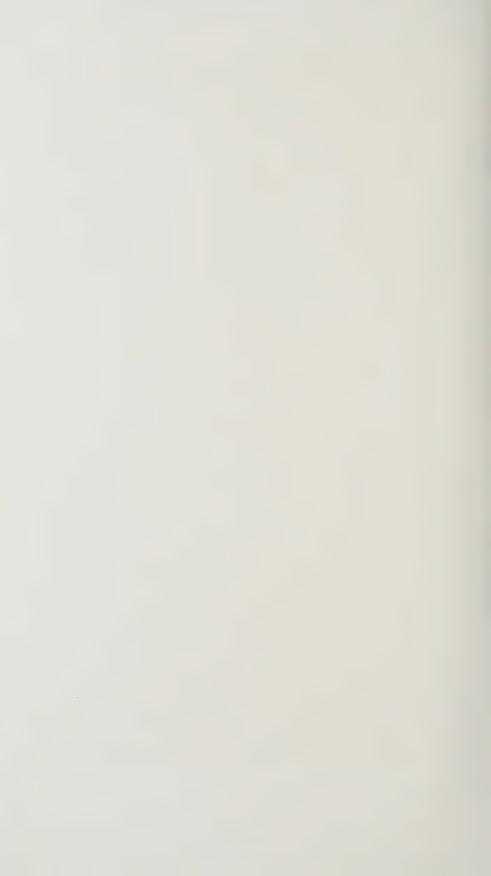
The officers and men were drawn from all parts of Canada, from the Atlantic to the Pacific. In so far as possible, men were allotted to forests most nearly resembling those in which they have gained their experience in Canada. Men from Eastern Canada operated in medium-sized timbers, and men from the West worked in the Jura and Vosges Mountains where logging engines, steel cables, and modern railways are required to get the timber out. Officers and men in the Corps, too, were employed as far as possible in the work for which they were best adapted. A great many of them were specialists in some particular branch of forestry work, and each specialist was employed on his own speciality, a method which not only insured greater efficiency, but promoted the best form of competition.

In March, 1918, at the time of the German advance, the Canadian Forestry Corps was called upon to train men as reinforcements for the Canadian Corps up to about 800 men, instructions being issued that each district must furnish a certain quota. As a result, when the Canadian Corps called for reinforcements in October, that number of Canadian Foresters was ready trained as Infantrymen.

Operations—Great Britain. In Great Britain the operations of the Corps extended over six districts at the time of the Armistice, four in England—at Carlisle, Egham, Southampton, and East Sheen; and two in Scotland—at Stirling and Inverness. There were 43 companies operating in the six districts and the strength of the Corps in Great Britain totalled 12,533, which



The Canadian Forestry Corps supplied timber to four armies. Here the men are seen hauling up logs in a French Forest.



included attached labour and prisoners of war to the number of 3,046.

As in France the Forestry Corps did valuable work for the Royal Air Force in this case for the Defence Wing. Indeed, the whole of the timber required in the construction of aerodromes in the British Isles was provided by the Canadian Forestry Corps, and it was officially stated by the Home Defence Authorities that the services rendered by them were such as to increase the efficiency of the Air Force in Great Britain, and were a direct means of assistance in defeating hostile raiding.

The appreciation of the Imperial War Office was conveyed in a letter to the Minister written by Lord Derby, then Secretary of State for War, in which he referred to the alacrity with which the men of the Canadian Forestry Corps had responded to exigent demands and the devotion shown by the fact that they worked sometimes 90 hours a week to save the timber position. Lord Derby concluded by saying that he hoped the men of the Forestry Corps would realise the gratitude which was felt for their work and for the spirit which had spared no exertions to assist the fighting men.

The Base Depot of the Corps was at Smith's Lawn, Windsor Great Park, the site of which covered over 125 acres of land lent by His Majesty the King, who, with the Queen, always manifested great interest in the Canadian Forestry men. All the work of receiving drafts from Canada, selecting reinforcements for France and the companies in England and Scotland, was done at this Depot. An average of 1,500 of all ranks passed through it monthly.

The vegetable farm cultivated at the Depot for the benefit of the men was one of the largest in Great Britain, and the Depot piggeries were entirely successful.

On November 11, 1918, the total strength of the Canadian Forestry Corps, including attached officers and men from Imperial Units, Portuguese, Finns, and prisoners of war, was 31,447, divided as follows:—

147, divided as follows.			
FRA	NCE.		
Officers, C.F.C		4 4	 425
,, Attached			 53
Other Ranks, C.F.C			 11,702
" " Attached			 1,039
Prisoners of War (13 Compa	nies)		 5,021
			18,240
	Total	• •	 10,410
			70

	GREAT	BRITAIN		
Officers, C.F.C.				343
,, Attach				49
Other Ranks, C.	F.C			9,624
,, ,, At	tached	• •		744
Finns, Attached				658
Portuguese, Att				524
Prisoners of Wa	r			1,265
		Total		13,207
Grand Total, C.F.C.	-Officers	and men	in France a	and
Great Britain,				
November 11, 1	918	970	• • •	23,979
Grand Total, includi				
11, 1918	0 0	• • •	• • •	31,447
At the time the the total timber us Front was supplied	ed by the	e Allied A	Armies on t	the Western
	FRAN	ICE.		
1917.—Per	riod Tanua	rv 1 to D	ecember 31.	
Sawn Material				3 f.b.m.
Round ,,			53,56	7 tons
Slabs ,,			149,48	3 tons
1918.—Per			ecember 31.	
Sawn Material				f.b.m.
Round ,,			170,713	5 tons
Slabs ,,			454,10	l tons
GRAN	D TOTALS.	-Period	1917-1918.	
Sawn Material			555,942,912	
Round ,,			224,282	2 tons
Slabs ,,			603,584	tons tons
	GREAT	BRITAIN.		
1916.—			December 31.	
Sawn Material		-		6 f.b.m.
Round ,,				3 tons
Slabs ,,			13,518	
1917.—Peri	od Januar	v 1 to Dec	cember 31.	
Sawn Material			77,120,160	f.b.m.
Round ,,			31,686	
Slabs ,,			56,224	

1918.—Period	January	1 to	December	31.
--------------	---------	------	----------	-----

Sawn Material	 	 161,944,332 f.b.m
Round ,,	 	 48,258 tons
Slabs ,,	 	 133,179 tons

GRAND TOTALS.—1916-17-18

	CIMI	ע	TOTALS.	-1310	-17-10.	
Sawn Ma	terial				257,598,648	f.b.m
Round	"				84,347	tons
Slabs	,,	۰			202,918	tons

GRAND TOTALS.

(Production for France and Great Britain from commencement of the Canadian Forestry Corps.)

Operations to December 31, 1918.

Sawn Mat	erial	 	 813,541,560	f.b.m.
Round ,		 • •	 308,629	tons
Slabs ,	,,	 	 806,502	tons

In addition the work of the Canadian Forestry Corps achieved the much desired and total result of releasing an immense amount of shipping tonnage for the transfer of food stuffs for the Allies.

The lumber imported by Great Britain

	in 19	13 an	nount	ed to		 11,600,000	tons
In.	1916 it	had	been	reduced	to	 6,000,000	tons
In	1917	,,	,,	,,		 2,775,000	tons
In	1918	,,	,,	,,		 2,000,000	tons

As a consequence the tonnage saved was sufficient to carry food supplies for 15,000,000 people.

To be really appreciated, therefore, the work of the Canadian Forestry Corps should be measured in terms of service rendered to the Allies in respect to:

- (a) The economic situation.
- (b) The fighting forces in the Field.

The foregoing figures for production are brief but eloquent testimony of the success of Canadian industry in exploiting the forests of France and Britain, in helping to defeat the enemy submarine menace, and in a variety of ways assisting in the ultimate attainment of victory.



Canadian Troops Outside the Corps.

In considering the achievements of the Overseas Military Forces of Canada in the field, special reference must be made to the various Formations outside the Corps, each of which rendered much valuable service in its own sphere.

In addition to the Canadian Corps, which at the time the Armistice was signed had a total strength of 110,600, there were nearly 40,000 Canadian troops, separate and distinct from the Corps serving in different capacities in the war zone throughout France and Belgium. No other British Dominion had her sons so widely distributed on the Western Front or engaged in so many diversified capacities as Canada.

This force of approximately 40,000 men was made up of railway construction experts, of lumbermen, of cavalrymen, of doctors and dentists, of engineers, butchers, bakers, and so on. Some were stationed near the North Sea, some near the Spanish border, some in Central France, and others in almost every place where there were Allied Forces. There was a large Canadian Base Camp at Etaples, for the temporary accommodation of reinforcements passing through. There were also Canadian Corps reinforcement camps in the vicinity of Aubin St. Vaast, near Montreuil, where the training was continued until the personnel were required by their respective units. The personnel at these camps were on the strength of their respective Units at the front and on the lines of communication. The functions of most of the formations that made up the 40,000 troops outside the Corps are given in various sections of this Report, but it is only just that special attention should be drawn to the work of these troops as a whole.

With the exception of the thousands of pilots and observers who were in the Royal Air Force and Independent Air Force when the fighting ended on November 11, 1918, the Canadian troops operating in France and Belgium were, for the most part, administered by Canadian authorities, though, like the Canadian Corps, they came under Field-Marshal Sir Douglas Haig for direction in all matters connected with military operations in the field.

The largest body of Canadians on the Western Front, separate from the Canadian Corps, was the Corps of Canadian Railway Troops, a force of experts on railway construction.

For nearly two years prior to the signing of the Armistice, the Corps of Canadian Railway Troops had been responsible for the building of all the light railways in the areas occupied by the five British Armies, on a line running from the North Sea southward to the junction with the French Army. They had also been responsible for the construction of most of the new standard gauge lines radiating from the Channel Ports on the French Coast to the actual battle zones.

The Canadian Forestry Corps was the most widely-scattered body of Canadians in the Western theatre of war. There were Companies exploiting French forests near the borders of Spain, Switzerland, and Germany. Others were in Central France, at different points near the Front Line, on the Lines of Communication, and at many places in companies or smaller formations.

With the aid of attached Labour and 13 Prisoners of War Companies, the Canadian Forestry Corps supplied the greater percentage of all lumber used by the Allied Armies in France and Belgium.

Only once during its career in France did the Canadian Cavalry Brigade take part as a mounted force in an engagement with the Canadian Corps. This was at Amiens on August 8. The rest of the time it fought exclusively with Imperial Forces, being attached to an Imperial Cavalry Division. It was attached to the 3rd Cavalry Division for the major portion of the time.

The Canadian Army Medical Corps had its havens of mercy widely distributed. At Boulogne there were No. 2 Canadian Stationary Hospital and No. 3 Canadian General Hospital. Nos. 1 and 7 Canadian General Hospitals were at Etaples, as was also No. 9 Canadian Stationary Hospital. No. 2 Canadian General Hospital was at Le Tréport, not far from Dieppe, and Nos. 3 and 7 Canadian Stationary Hospitals were at Rouen. No. 10 Canadian Stationary Hospital was at Calais, No. 8 Canadian Stationary Hospital at Charmes, and Nos. 6 and 8 Canadian General Hospitals were in Paris. The four Canadian Casualty Clearing Stations or Hospitals, numbering 1 to 4, were moved from place to place as the military situation demanded. They were always situated within a few miles of the front line. No. 2 Canadian Casualty Clearing Station was for over two years in the British Second Army Area, being for most of that time located at Remy Siding, near Poperinghe, and almost opposite what were known as Connaught Lines, famous to Canadians in the early days of the War. It was there that several Canadian Battalions had their transport lines from time to time. The only units of the Canadian Army Medical Corps that were a part of the Canadian Corps were the Field Ambulances.

The Canadian Army Service Corps had supply units at several centres outside the Canadian Corps Area. There were four units of field bakeries and two units of field butcheries at Boulogne, while there were supply units at Etaples, Rouen, Calais, Havre, and Dieppe.

The Minister is represented at General Headquarters of the British Armies in France by what is known as the Canadian Section, and the most important functions of this Section are dealt with under a separate head.

The following list gives the chief Canadian formations that were operating outside the Canadian Corps Area in France and Belgium, with the relative strength of each, at the time the Armistice was signed:—

listice was signed.			
Ü	Officers.	Oth	ner Ranks.
Corps of Canadian Railway Troops	491		14,390
Canadian Forestry Corps	376		11,375
Canadian Cavalry Brigade	141		2,719
Canadian Army Medical Corps	360		2,467
Canadian Army Service Corps	57		1,675
Canadian Engineers Reinforce-			
ment Pool	49		1,214
Canadian Labour Pool			1,881
Canadian Base Signal Pool	8		432
Canadian Army Veterinary Corps	9		438
Canadian Army Dental Corps	52		104
Miscellaneous Details	65		479
Totals	1,608		37,174



Canadian Tank Battalion.

Of all the new arms called into being by the War the Tank probably most appealed to the public imagination, and had hostilities been prolonged, Canada would have seen her own Tank Corps in the field.

It was in March, 1918, that the War Office asked the Canadian Government, through the Minister, to provide the personnel for one Tank Battalion. Three months later the first Canadian Tank Battalion arrived in England, with a strength of 92 officers and 716 other ranks.

The high standard of the personnel may be gathered from the fact that it was recruited entirely from among the Universities of Canada; McGill University and Toronto University each furnished one Company of the Battalion, while the third Company was recruited from among the other Universities. A considerable percentage of both officers and men had mechanical qualifications.

After the usual period had been spent in the Segregation Camp at Frensham Pond, in Surrey, the Battalion proceeded to the Imperial Tank Training Camp near Wareham in Dorsetshire to begin its technical training. By August, 1918, when the Battalion was still in training, the Allies had taken the Offensive, and the Tank had again proved itself an invaluable weapon in attack. In each successive engagement which followed the Battle of Amiens of August 8—the action that marked the definite turning point in the War—every available Tank Unit had been employed, and the War Office made a further request to the Canadian Government through the Minister for the provision of a second Canadian Tank Battalion.

The request was immediately complied with, and on October 18, 1918, the second Canadian Tank Battalion arrived in England with a strength of 44 officers and 960 other ranks.

The first Canadian Tank Battalion had completed its training, and was on the point of going to France when Armistice was declared, and it thus became necessary to abandon the project of raising the third Tank Battalion which was then under consideration, as was the whole question of the formation of a Canadian Tank Corps.



CANADIAN ARMY MEDICAL CORPS.

INDEX.

	PAGE
THE MACHINE OF HEALING-	
Development and Duties of the Canadian	
Army Medical Corps	381
ENEMY OUTRAGES ON THE C.A.M.C.—	
Bombing of Hospitals at Etaples and	387
Doullens	390
"Control of 11.M.11.5. Liandovery Castle	390
"CASUALTIES"—	
Stages of the Wounded from the Battlefield	
to "Blighty"	391
ESTABLISHMENTS OF THE VARIOUS ORDERS OF	
Units in the C.A.M.C.—	
(a) Units in England	393
(b) Units in France	394
WAR ACTIVITIES OF THE C.A.M.C.—	
	00.4
(a) Personnel	394
(b) Units in France and elsewhere	395
(c) Units in England (d) Combined Return of Units C.A.M C	395
	395
CANADIAN ACCOMMODATION FOR SICK AND	
Wounded—	
(a) Bed capacity, Canadian General and	
Stationary Hospitals Overseas from	
England	396
(b) Casualty Clearing Stations	397
(c) Canadian Hospitals in England—	000
1. General Hospitals	398
2. Special Hospitals	399
3. Convalescent Hospitals	400
4. Summary of growth of bed capacity	401
in England 5. Bed capacity in Canadian Hospitals	401
in England and Overseas from	
England	401
England (d) Hospital Ships	401
Helpers of the C.A.M.C	401
TIELFERS OF THE C.A.M.C	401



Canadian Army Medical Corps.

When the great call came in 1914, the personnel and equipment of the Canadian Army Medical Corps was at the time but the very small nucleus of the enormous organisation into which it had grown at the date of the Armistice.

By that time the operations of the Canadian Army Medical Corps more than equalled those of the entire British Royal Army Medical Corps during the South African War. The bed capacity of the Canadian Hospitals Overseas rose from 3,000 in June, 1915, to upwards of 40,000 in November, 1918. That, in a nutshell, tells the story of the growth of the Canadian Army Medical Corps; but this amazing expansion would not have been possible but for wise provision made in previous years.

The step which made the present efficient organisation of the Canadian Army Medical Corps possible dates only from 1904, when the first skeleton was formed to meet the contingency of war. The first establishment and equipment of the Medical Branch was authorised in 1911. This establishment embraced a complete scheme for mobilisation in the event of hostilities, and the efficiency and training it afforded before the declaration of war in 1914 were made apparent at the second Battle of Ypres, when the conduct and direction of the Canadian Medical Service received the highest commendation of the British Authorities; and that efficiency has been developed to the highest pitch under the present Director of Medical Services, Major-General G. L. Foster, C.B.

The expansion of the permanent organisation, however, would have been quite impossible but for the heavy sacrifices of the doctors in Canada who, at the call to arms, threw up their practices to undertake the arduous and oftentimes dangerous duties of the charge of Canadian sick and wounded Overseas.

Here, however, it may be pointed out that the work of an Army Medical Service is divided into two sections—the professional side, which comprises scientific medical work, and the military side, which provided the means whereby the professional side is able to carry out its duties to the best advantage. The two sections work hand in hand, but professional work is, of course, the raison d'être of the Service, and how many and terrible are its problems can only properly be understood when it is realised that it had of itself a two-fold battle to fight. There was the long and bitter defensive and remedial action against horrors such as poison gas and the rest of the devilish devices of destruction—the inventions of that Kultur which was the offspring of a scientific spirit unmitigated by humanity. Again, there was the long and endless offensive against dirt which is the beginning of all that disease which ends in the destruction of armies. It was a combined offensive and defensive action which called forth not only devotion to duty but the highest qualities of mind and the utmost determination of spirit of which the physicians and surgeons were capable.

It was well for the Canadian Army Medical Services they had such splendid material to draw upon. The services of the most expert surgeons and physicians were, naturally, most urgently needed. The creation of a Consultant Staff, with officers of ripe professional experience to supervise the work at hospitals, sanitary formations, laboratories and so on, was one of the Canadian Army Medical Services' most pressing cares. It was organised on an effective and systematic basis, and its success has been largely due to the invaluable services which have been rendered by some of Canada's most brilliant medical men, in conjunction with those of England and of France. The advances in war medicine and surgery were kept pace with at every stride.

The Canadian consultants and specialists attended the different important Allied Medical Conferences and made tours of observation and instruction in the hospitals of various countries, and it was by these and other means that Canadian soldiers in hospital benefited by the latest medical and surgical discoveries in every land which was at war with the country responsible for the horrors which had to be faced. The knowledge so acquired was passed on to the eager and enthusiastic staffs of every Canadian Hospital. The different wonders accomplished by medicine and surgery during the war have long since been common knowledge.

It is sufficient to say that miracles were indeed performed the lame walked, the deaf heard, the dumb spake. Canada has more than reason to be grateful to her medical men. As already indicated the resources of the medical profession were not called on merely to perform miracles of healing. The simple word sanitation covers a multitude of hygienic accomplishments.

First then, came sanitation and the prevention of sickness. Such a thing as a feetid odour is practically unknown in a military area. To drink from an unauthorised source is a crime. Wells were examined even while they were yet under fire, food is scrutinised before every meal, the men are bathed as methodically as they are fed, and a battalion of a thousand men can be inoculated against disease in 35 minutes. As a result of these and other precautions, the dreaded enteric has practically ceased to exist and epidemics are mostly confined to such childish maladies as measles, which still defy the ingenuity of medical science. The results in regard to enteric were the most remarkable of all. Of 100,000 Canadian patients only one man was found to have typhoid, and that was in the case of a man who for some reason had not been inoculated.

The professional side of the Canadian Army Medical Corps has, indeed, accomplished marvels, but due credit must be given to the military side of the same organisation, for its duties are many and complex, and organisation and administration have played a great part in the Service's fight for the lives of Canadian soldiers. The military side has to provide places of treatment, strategically located for the convenient and economical reception and evacuation of patients. It has to furnish the means of conveying the patients promptly and comfortably to places where their needs can be efficiently attended to without delay, and it has to devise and control the movements of railway trains, ships, and other transport for that purpose. It has to arrange for facilities in the matters of space, supplies, housing, feeding, clothing, proper records, and many other intricate details.

It will thus be seen that it is impossible to divorce the Medical Service from the rest of the military machine which it serves. It must be part and parcel of it and amenable to the same regulations and discipline, or its efforts to re-establish the sick and reconstitute the wounded will be for the most part vain.

The ordered system of the Director-General of Medical Services in London must be as complete, as comprehensive and as unfailing as the administration of the General Staff, the Adjutant-General's Branch, or the Branch of the Quartermaster-General. There must be machinery behind the men.

And this urgent requirement of a perfect organisation applies with equal force to the Front. Medical arrangements must be devised ahead of each action. They vary with the plan of battle, and must be modified as the battle proceeds.

Consider the difference, for instance, between the medical organisations with a division, or on the lines of communication, or again at the Base. It is impossible to enter into the intricacies of all these varying organisations, but the figures concerning the Medical Service attached to a division will alone serve to indicate what organisation and administration is entailed. In a division there are about 20 Regimental Medical Officers and three Field Ambulances, with nine Medical Officers each. The personnel is divided into bearer, tent and transport sections, about 750 men to the three ambulances. For transport, each ambulance has 50 horses and seven motor and three horsed ambulances, with General Service wagons and carts in addition. A compact little army in itself.

It is impossible to recapitulate the various achievements of the Canadian Army Medical Service, but here are a few of its activities in tabloid form which will serve to indicate the scope of its duties in scientific and organised healing.

- A School of Massage and Swedish remedial drill was organised for training Nursing Sisters and soldiers for this service in hospitals.
- The Medical Service for troops and civilians returning to Canada by transport was thoroughly re-organised and placed on an efficient basis.
- A complete scheme was instituted for the hospitalisation of Canadian Officers and Nursing Sisters, and this pronouncedly reduced the period of non-effectiveness of casualties in these ranks.
- Comprehensive machinery was organised for dealing with the selection, documentation, medical documentation and embarkation, and transport of patients invalided to Canada for further treatment. Upwards of 9,000 patients were returned to Canada in the year 1917, and 13,481 patients in the year 1918.

A system for the thorough and efficient training of Canadian Army Medical Corps officers and men was organised at the Canadian Army Medical Corps Depôt, and a finishing course in the hospital. Refresher courses were provided for reinforcements drafted for Overseas Service.

The Canadian Army Medical Corps Laboratory Service has been definitely organised on an economical and efficient basis. Four grades of laboratories have been adopted with standard equipment and established personnel for each; and each of the two laboratory Units and 22 Hospital Laboratories have been organised. The X-Ray Laboratory Service had been similarly organised and systematised.

A Central Medical Stores was organised through which all Medical Supplies and Technical Equipment were received and distributed, and the Medical Stores and Technical Equipment of all Units and Medical Inspection Rooms were standardised and redistributed on an economic basis. Further, there was established a complete and effective system of supply and accounting for stores and equipment which made at once for efficiency and economy.

The Sanitary Service was also completely re-organised, and measures for the prevention and control of infectious diseases placed on an effective basis, and one that embraced all the recent advances made in this particular branch of Medical Science.

Machinery was organised for the immediate segregation and control of infectious cases and contacts arriving from Canada, similar machinery being established to deal with cases or contacts developing in any part of the Forces while in England. The movement of infectious cases and contacts between Formations was also strictly guarded against. The despatch of cases of carriers to France was similarly dealt with.

Definite arrangements were drawn up for all Medical Units and Division Units organised or re-organised in accordance with the authorised scheme. In this way the combined experience of military experts produced the organisation of similar Units on uniform lines, which increased the uniformity of the Service as a whole and resulted in great economy of personnel.

Among the Units so organised were:-

10 General Hospitals.

8 Special Hospitals.

6 Convalescent Hospitals.

*3 Ship Hospitals.

2 Laboratory Units.

4 Sanitary Sections.

1 Central Medical Stores.

2 Advance Depôt Medical Stores.

1 Regimental Depôt and Training School.

7 Administrative Units—1 D.G.M.S.; 6 A.D.M S. for Training Areas.

In addition an establishment was provided for the Nursing Section of the Canadian Army Medical Service, placing this most valuable part of the Service on a definite basis for the first time.

The re-organisation of the Medical Board Services and the classification of troops according to medical fitness was alone a great undertaking. During the later stages of the war there was an average of over 6,000 Medical Boards per month, while upwards of 14,000 troops were

reviewed per month for classification.

The Canadian Army Medical Service did not exempt itself from this review. On the contrary, its personnel was thoroughly sifted for the release of Category A men fit for General Service. As a result, 1,883 men nearly the strength of two Battalions were released to the combatant forces.

Boarding and classification was decentralised into Areas to do away with congestion and delay, and at the same time a Central Control was organised with a systematic inspection and supervision, which ensured proper and uniform standard throughout the Service. In addition, the Board Service was co-ordinated with the work of the Pensions Authorities and with the Hospital Service, the Adjutant-General's Branch, and to the general internal economy of the various Formations of the Forces. The Board Establishment also took over the examination of reinforcements drafted from Overseas, and this work was co-ordinated with the inspection work at the Base in France.

Truly this is an administrative record of which the Canadian Army Medical Corps may well be proud. But it must be

^{*} This includes the "Llandovery Castle," sunk by enemy submarine.

remembered that just as there is "the man behind the gun," so there is the doctor and the man behind the lancet, and the nursing sister and the true Canadian woman behind the grim paraphernalia of her office. And great have been the souls and stout the hearts and deft the hands, not merely of the doctors and the nursing sisters, but all those "other ranks" who give the great machine of healing its life and its humanity. Unflinching in danger, resolute in duty, unremitting even in the drudgery of their voluntary crusade against disease and death—to these devoted men and women go out the thanks of scores of thousands of Canadian soldiers, and the heartfelt gratitude of hundreds of thousands who loved the men maimed in the defence of Canada upon the Fields of Flanders and of France.

ENEMY OUTRAGES ON CANADIAN ARMY MEDICAL CORPS.

Air Raid on Hospitals at Etaples.—It was not to be expected that the Canadian Army Medical Service would escape its share of outrage from the enemy, and three events will forever be remembered for the murder most foul of Canadian sick and wounded—the bombing of the Canadian Hospitals at Etaples and Doullens, both in May, 1918, and the sinking of the Canadian Hospital Ship "Llandovery Castle" in June of the same year.

It is beyond all question that the Germans made any mistake in regard to the bombing of the Hospitals at Etaples. Since the autumn of 1914 Etaples was perfectly well-known to the Germans as a great Hospital Area, Canadian General Hospitals No. 1, No. 7 and No. 9 being merely three Units in the colony of British Hospitals which housed thousands upon thousands of beds. Like enough it was the assemblage of so many stricken soldiers which presented the enemy with a temptation which he could not resist.

No. 1 Canadian General Hospital had been established there since the spring of 1915; No. 7 (Queen's University) had taken over another site at Etaples when it had returned from the East; and No. 9 had been transferred from St. Omer because of the danger from shell fire at what had formerly been British Headquarters. The whole Area indeed must have been well marked on the enemy's map.

It was perhaps, too, typical of his mentality that he should choose the night of Whitsunday (May 19) for his first raid on the helpless in this district. On that night there were upwards of 1,000 patients in No. 1 Canadian General Hospital, 300 of whom were femur cases. The nature of the treatment for these cases demands that the patients shall have the leg fixed by bandages in an extended position to a firm, immovable framework. It is easy, therefore, to conceive the plight of these patients who could not be moved as the bombs began to fall; and with obviously deliberate purpose the first bombs which the enemy dropped were incendiary bombs, so that the flames from the burning buildings gave him plenty of light for his work.

The raid lasted two hours, more than one aeroplane coming down so low as to be able to employ machine guns upon those engaged in the work of rescuing the wounded from the burning huts. Among those were a number of British Guardsmen camped outside the Hospital Area who came over immediately the place caught fire to lend every assistance they could. The casualties that night at No. 7 Canadian General Hospital amounted to upwards of 50 killed and 50 wounded among the staff—among the killed, was one nursing sister, and among the wounded seven nursing sisters, two of whom subsequently died, while six patients were killed and over 30 wounded. Canadian General Hospital No. 1 also suffered severely, three of the staff were killed and 21 wounded, of whom three afterwards died. Nine patients were killed and 37 wounded.

It was a night of horror relieved by examples of wonderful heroism. While the raid was still in progress stretcher parties hastened to remove the wounded to places where they could receive first aid, and while the enemy aircraft still circled overhead the nursing sisters went about their work with perfect coolness.

On May 21 a second raid was attempted, but fortunately no damage was done. The third raid came on the night of the 30th, and lasted from 10.30 p.m. to past midnight. On this occasion the bombs fell into the town, not in the Hospital Area. The fourth raid was on the night of the 31st, and it was again reported that it was impossible to speak too highly of the conduct of the members of the staff.

That night casualties were again heavy, and No. 9 Canadian Stationary Hospital, which had been established in huts, but had not yet begun to receive patients, did not escape without victims. In this Unit alone one officer subsequently died from his wounds, while two nursing sisters and 14 other ranks were wounded.

In regard to the raid of May 19, it should be pointed out that it was not the Canadian Hospitals alone which suffered through this raid. Altogether some 100 bombs were dropped in this area, killing in all 124 other ranks. True, Canadian General Hospital No. 1 was the heaviest individual sufferer among the killed at the time, but 89 of the wounded among the British died of their wounds later.

The Bombing of Doullens.—No more doubt exists as to the enemy's deliberate purpose in bombing No. 3 Canadian Stationary Hospital at Doullens on the night of May 29, 1918, than the case of the obvious open massacre among the Hospital Units at Etaples.

The fort in which the hospital was situated was a landmark, and a landmark well known to the enemy as the home of a Hospital Unit. It lay well apart outside the town, with fields on three sides of it and a French Hospital on the fourth. It had been used solely for hospital purposes since the very beginning of the war; there were no ammunition dumps, stores, camps, artillery, or any other military material in its neighbourhood. Giant Red Crosses were painted on its roofs; the most wilfully short-sighted of enemy airmen could not have mistaken it.

It is just possible that the deliberate raid upon it was prompted by the miserable motive of revenge, for No. 3 Canadian General Hospital had done good work. It had won, too, a great name. During the German offensive in March, when the British Casualty Clearing Stations were compelled to fall back rapidly, and 50 miles of front thick with casualties were left without a single Casualty Clearing Station or an advance operating centre, Doullens became the natural Clearing Station for all this extensive area.

It rose to the occasion. In the month before the offensive admissions had averaged 50 a day. On March 22 the admissions jumped to 500, on March 23 to over 1,000, on March 26 to over 1,600, and on March 28 and 29 to well over 2,000 a day. Thirty-six thousand casualties passed through it in the ten weeks between March 21 and May 30, and 57,000 odd from May 1 to July 10. At the height of this crisis half-a-dozen surgical teams—Canadian, British, and Amercian—were working by

day and another half-a-dozen teams by night. At times its accommodation was so taxed that some of the milder cases had to be placed two in a bed with one on a palliasse under the bed.

Were these the reasons for which the enemy singled out this hospital for a manifestation of his super-contempt of the Hague Convention and of humanity?

It was just after midnight, May 29–30, that an enemy aeroplane dropped a flare, and then an incendiary bomb which struck the hospital full and fair. Instantly a fire broke out, and the whole upper group of buildings was threatened. An operation was in progress at the time of the raid and the whole of the surgical team, the nursing sisters, the patient and the stretcher-bearers were instantly killed.

The flames spread rapidly, and the nursing sisters and orderlies had the utmost difficulty in removing their patients to safety. All behaved with magnificent courage. It is impossible to bestow all the honour which is due to individuals. The case of the nursing sister who slid down the débris, leading her patients, the stairway having gone, is but a typical incident.

Of the staff, two officers, three nursing sisters, six N.C.O.s and 10 other ranks were killed, and one nursing sister and 15 other ranks were wounded. Among the patients six officers were killed, two were subsequently found to be missing and reported dead, and three other ranks among the patients also lost their lives.

"Llandovery Castle."—The story of the sinking of H.M. Hospital Ship" Llandovery Castle" is well known, but reference must be made to it in this report, not only because what it affords is probably the most deliberate sinking of a hospital ship on record, but because the tragedy is in some degree softened by the remarkable heroism and devotion to duty of the staff of the Canadian Army Medical Service on board.

Out of the entire ship's company there were only 24 survivors, and of these only six, one officer and five other ranks, escaped out of a hospital personnel of 97.

The fiendish sinking of the "Llandovery Castle" was perpetrated by an enemy submarine on June 27, 1918, and the evidence of the six survivors of the hospital personnel leaves no doubt that the German submarine commander was resolved to sink the ship "without trace." This is obvious from the

systematic attempts made by the submarine after the vessel had been torpedoed, to ram, shell, and sink the lifeboats and wreckage floating helplessly with their 258 helpless victims, 116 miles from land.

In spite of their appalling circumstances the conduct of all on board was in fitting keeping with the proudest traditions of the British Army and the Mercantile Marine. And throughout nothing is more marked than the coolness and courage of the 14 Canadian Nursing Sisters, every one of whom was lost.

No excuse could be advanced by the enemy for this pitiless murder of almost the entire ship's company in cold blood. The night was clear, all lights in the vessel were burning, the customary Red Cross signal being prominently displayed amidships. It is also, perhaps, unnecessary to reaffirm that the accusation of the German submarine commander that the "Llandovery Castle" was carrying American Flying Officers or munitions of war, was without the faintest justification. It was an accusation on a par with the spirit which promoted the destruction of a vessel which was immune from attack by every law of war or peace.

CASUALTIES.

Stages of the Wounded from the Battlefield to "Blighty."

It was the policy of the Canadian Authorities to provide beds in sufficient numbers in Canadian Hospitals in the British Isles to meet the requirements of the casualties among the Canadian Troops in France.

So far as was practicable and possible, too, the Canadians evacuated from France were distributed to Canadian Hospitals. In times of stress, however, mainly to meet the exigencies of Ambulance Railway Transport in England they had, of necessity, to be distributed to both British and Canadian Hospitals. That, after severe fighting was inevitable; but every effort was bent towards placing Canadians in Canadian Hospitals, and how successful was this endeavour is evident in the expansion of Canadian bed capacity alone. Where it was necessary, owing to the demands of the moment to place Canadians in British Hospitals, the British Authorities were prevailed on to place Canadians in Hospitals in areas most easily accessible to the Canadian Authorities and to the Canadian patients' relatives and friends.

It is interesting to glance for a moment at the progress of a casualty from the time he was hit in the Field up to the time he reached his Canadian haven of refuge in the land of respite from war, which, to the Imperial and Canadian troops alike, was known affectionately and popularly as "Blighty."

When the Canadian soldier—officer or man—was wounded in the Field he was first tended by the stretcher-bearers of his Unit who bore him back to the Regimental Aid Post, unless, of course, the casualty were what is known as a "walking wounded."

At the Regimental Aid Post the Medical Officer supplemented whatever additional treatment he could to that which had already been administered by the bearers.

As quickly after that as might be, the casualty was moved on to the Advance Dressing Station for Field Ambulances, which perhaps might be one or two miles in the rear. Sometimes, of course, it was possible for the wounded man to proceed on foot, but the more serious cases were conveyed by stretcher and at times by horse ambulance. The latter was the method most used during the Battles of Amiens, Arras and Cambrai.

At the Advance Dressing Station the patient again received every care which could be given there, and thence he was hurried on by Motor Ambulance or light railway to the main dressing station of the Field Ambulance and thence the Casualty Clearing Station. During the last 12 months of the war standard gauge trains linked the main Dressing Stations to the Casualty Clearing Stations, and the comfort of the wounded was thereby greatly increased.

At every stopping place indeed, everything that it was humanly possible to do was done for the wounded men. From the time of their arrival at the Regimental Aid Post and throughout their subsequent journey those cases which could take nourishment were amply provided with comforting drinks and food.

It was not, however, until the Casualty Clearing Station was reached, that whatever operation was necessary was performed, other of course, than the control of hæmorrhage, removal of utterly destroyed limbs, treatment of shock and the initial treatment of gassed cases. Here at the Casualty Clearing Station, teams of skilled surgeons, including specialists, worked with ordered and skilful haste. Here, too, the casualty



In this Ward of a Canadian Casualty Clearing Station at Valenciennes are lying some of the Canadians who were wounded during the days which immediately preceded the Armistice.



was bathed and clothed and put into a clean bed until such time as it was considered safe to move him to the Stationary or General Hospital located on the Lines of Communication, or on the coast at Etaples, Boulogne or Calais.

From the Casualty Clearing Station to the Hospital all wounded were conveyed in a specially-equipped Hospital Train which carried Medical Officers and Nursing Sisters. At the hospital the wounded men remained until they were fit to be evacuated to a convalescent camp in France or carried to England in a floating hospital for further treatment there.

Such is the bald outline of the journey towards rest of the happy warrior who had found peace with honour.

It does not, however, convey all the wonderful surmounting of difficulties during that journey out of the hurly-burly, from the Regimental Aid Post, around which the shells always fell, to the final happy refuge in one of Canada's great palaces of healing in "Blighty." Nor could any words convey the kindness, the humanity and the skilled care which eased the bodies and cheered the spirits of the men who journeyed on that pilgrimage of pain.

ESTABLISHMENTS OF THE VARIOUS ORDERS OF UNITS IN THE C.A.M.C.

The names and other details concerning the various establishments of the C.A.M.C. are given in the tables. Information regarding the relative strengths of these establishments are as follows:—

(a) Units in England.—On November 30, 1918, the total personnel of the C.A.M.C. in England (officers, nursing sisters and other ranks) was 7,676—namely, 770 medical officers, 1,094 nursing sisters and 6,512 other ranks.

Of these, 437 medical officers, 1,006 nursing sisters and 3,656 other ranks were on the establishment of Hospital Units; 15 medical officers, 27 nursing sisters and 182 other ranks on that of the hospital ships H.M.A.T. "Araquaya" and H.M.A.T. "Essiquibo"; the remainder were attached to administrative staffs, Medical Boards, Regimental, and other establishments.

Regarding Hospital Units, there are here included 10 General Hospitals, six Canadian Convalescent Hospitals (namely, Bearwood Park, Bromley, Matlock Bath, Epsom,

Bexhill, and Monks Horton), and nine Canadian Special Hospitals (namely, Granville Canadian Special Hospital, Buxton; Canadian Red Cross Special Hospital, Buxton; Etchinghill, Witley, Lenham, Westcliffe Eye and Ear Hospital, Petrograd, and the Canadian Forestry Corps Hospital, Beach Hill and Bushey Park).

The divergence between the Bed Capacity list of Canadian Hospitals and that of the Canadian Hospital Units now referred to is brought about by the fact that on November 30, 1918, two Hospital Units, namely the 9th and 10th Canadian General Hospital Units, were operating British Hospitals, the Shorncliffe Military Hospital and the Kitchener Military Hospital, Brighton, respectively.

(b) **Units in France.**—On the same date there were in France 681 medical officers of the C.A.M.C., 792 nursing sisters, and 5,731 other ranks.

These were distributed between six General Hospitals, six Stationary Hospitals, four Casualty Clearing Stations, 14 Field Ambulances, five Sanitary Sections, one Laboratory Unit, one Depôt Medical Stores and Administrative Staffs, with, in addition, individual officers (not establishments) attached to Divisions, Forestry Corps Troops and Cavalry.

WAR ACTIVITIES OF THE C.A.M.C.

The tables which follow present in a condensed form the outstanding facts regarding the activities and the progressive expansion of the C.A.M.C. during the war.

(A) PERSONNEL.—Strength of C.A.M.C. Overseas Military Forces of Canada on June 1 of successive years and on November 30, 1918.

			Nov. 30.			
		1915*	1916	1917	1918	1918
Officers		378	817	1319	1386	1451
Nursing Sisters		535	915	1486	1829	1886
Other ranks	• •	3620	6913	11327	12304	12243
Total personnel		4,533	8,645	14,132	15,519	15,580

^{*}The only figures available are for August 10, 1915.

(B) Units in France and elsewhere.—Summary of Units of the C.A.M.C. in France on June 1 each year (excluding Corps and Divisional Staffs). There is no change between June 1 and November 30, 1918.

		1915.	1916.	1917.	1918.
General Hospital		 2	8	6	6
Stationary Hospitals		 2	4	4	6
Casualty Clearing Stations		 1	3	4	4
Field Ambulances		 3	6	13	14
Sanitary Sections		 1	2	3	5
Medical Depôts		 1 .	1	1	1
Mobile Laboratories		 1	1	1	1
Totals	• •	 11	25	32	37

(C) Units in England.—Summary of Units of the C.A.M.C. in England on June 1 each year (excluding Headquarters and Camp Staffs).

				1915.	1916.	1917.	1918.
General Hospitals	,			4	3	7	10
Stationary Hospital	s			0	3	0	0
Special Hospitals				0	4	5	7
Convalescent Hospi	tals			3	7	8	8
Laboratory Units			,• •	0	0	2	1
Sanitary Sections				1	2	4	4
Medical Depôts				2	3	3	1
Hospital Ships				0	0	1	2
	TOTALS	• •	• •	10	22	30	33

(**D**) Combined Return of Units C.A.M.C.—The combined return of Units of the Canadian Army Medical Corps (excluding Staffs) Overseas in England and in France for the years 1915, 1916, 1917, and 1918, are as follows:—

		Units
June 1, 1915	 	 21
June 1, 1916	 	 48
June 1, 1917	 	 62
November 30, 1918	 	 67

CANADIAN ACCOMMODATION FOR SICK AND WOUNDED.

The following tables show Canadian Establishments and the development of Bed Capacity in Canadian Military Hospitals Overseas, in England, and in France and elsewhere, for the years 1915, 1916, 1917, and 1918:—

Bed Capacity (including crisis expansion), Canadian General and Stationary Hospitals Overseas from England in the years 1915, 1916, 1917 and 1918.

	Bed capacity on June 1. Nov. 30.				
	1915	1916	1917	1918	
No. 1 Canadian General Hospital. Opened Etaples, 31/5/15	100	1,040	1,400	1,400	
No. 2 Canadian General Hospital. Opened Le Tréport, 8/4/15	1,040	1,600	1,810	2,210	
No. 3 (McGill) Canadian General Hospital. Opened Camiers, 7/8/15; transferred Boulogne		1,500	1,517	2,000	
No. 4 (University, Toronto) Canadian General Hospital. Opened Salonica, 11/11/15; transferred to England, August, 1917, and opened at Basingstoke		1,440	2,000	Eng.	
No. 5 Canadian General Hospital. Opened Salonica, 19/12/15; left August, 1917; opened Kirkdale later in year.		1,040	2,000	Eng.	
No. 6 (Laval) Canadian General Hospital. Opened Troyes, 23/1/17; transferred to Joinville, 1/6/18			1,400	800	
No. ? (Queen's University) Canadian General Hospital. Originally No. 5 Stationary; opened Cairo, 26/8/16, with 400 beds; became No. 7 Canadian General, January, 1916; transferred Le Tréport, April, 1916; transferred Etaples, November 1916		1,040	2,290	2,290	
No. 8 Canadian General Hospital. Originally No. 4 Stationary; opened St. Cloud, 21/3/16; became No. 8 General, 8/7/16		400	520	570	
No. 1 Canadian Stationary Hospital. Opened Boulogne, March, 1915; opened Lemnos, 23/8/15; Salonica, 4/3/16; left Salonica, August, 1917; now No. 13 Canadian General Hospital, Hastings	300.	400	600	Eng.	
Carried forward	1,440	8,460	13,537	9,270	

Bed Capacity (including crisis expansion)—continued.

	Bed capacity on June 1. Nov. 30.			
	1915	1916	1917	1918
Brought forward	1,440	8,460	13,537	9,270
No. 2 Canadian Stationary Hospital. Opened Le Touquet, 4/12/14; transferred Outreau, 21/10/15	650	300	539	650
No. 3 Canadian Stationary Hospital. Opened Lemnos, 23/8/15; transferred Boulogne, 28/5/16; transferred Doullens, 21/11/16. In the spring of 1918 acted as C.C.S. with 1,000 beds. Transferred to Rouen, August, 1918.		400	750	1,090
No. 7 (Dalhousie) Canadian Stationary Hospital. Opened Le Havre, 19/6/16 (800 beds); tent Section of 400 beds at Harfleur, 27/12/16; transferred Argues, 1917; April, 1918; transferred to Rouen, May, 1918; Camiers, September, 1918		400	520	900
No. 8 Canadian Stationary Hospital. Proceeded to France, 5/12/17: opened Charmes (Vosges), April, 1918, with 400 beds; Dunkirk, November 24, 1918				400
No. 9 (St. Fr. Xav.) Canadian Stationary Hospital. Proceeded to France, 5/12/17; opened St. Omer, January, 1918 (400 beds); Etaples, April, 1918				400
No. 10 Canadian Stationary Hospital. Proceeded to France, December, 1917; opened at Calais, January, 1918				612
Forestry Corps Hospitals At Champagnoles (50), La Joux, Jura (70), and Gerardmer, Vosges (50), opened early 1918				200
Total beds, General, Stationary, and Forestry Corps Hospitals	2,090	9,560	15,346	13,522

Casualty Clearing Stations.—There were four Canadian Casualty Clearing Stations, one for each Division. These were opened with the arrival or establishment of each Division in France. They were developed into advanced surgical stations, with six operating tables, at four of which during rushes, teams from other hospitals further along the Line of Communication co-operated to deal with urgent head, chest

and abdominal cases. In this way they became Units of foremost importance from a surgical point of view; capacity 2,000 or more daily during increased activity.

Canadian Hospitals in England.—(I) Development and Capacity on June 1, 1915, 1916, 1917, and November 30, 1918.

	1915	1916	1917	Nov. 30 1918
GENERAL HOSPITALS. Taplow. Duchess of Connaught Canadian Red Cross Hospital. Opened 15/3/15; on 10/9/17 became No. 15 Canadian General (Duchess of Connaught) Hospital	104	1,070	1,291	1,040
Shorncliffe. Moore Barracks Canadian Hospital. Opened May, 1915, on 10/9/17; became No. 11 Canadian General Hospital (including affiliated Queen's Canadian Hospital, Beachborough Park)	520	920	1,040	1,100
Orpington. Ontario Military Hospital. Opened 19/2/16; became No. 16 (Ontario Military Hospital) Canadian General Hospital		1,377	1,544	2,182*
Bramshott Military Hospital. Operated by No. 9 Stationary Hospital; taken over from British, September, 1916; became No. 12 Canadian General Hospital			800	1,515
Hastings. Canadian Military Hospital. Taken over from British, and operated by No. 8 Stationary Hospital, 22/1/17; by No. 1 Stationary Hospital, 24/9/17; became No. 13 Canadian General Hospital			722	313
Eastbourne. Canadian Military Hospital. Operated by No. 10 Stationary Hospital, became No. 14 Canadian General Hospital			554	660
Liverpool. Canadian Military Hospital, Kirkdale. Opened 2/7/17; taken over by No. 5 Canadian General Hospital				1,180
Basingstoke. No. 4 Canadian General Hospital. Transferred from Salonica; opened 31/8/17				1,600
Total beds, General Hospitals	624	3,367	5,951	9,590

^{*} Including 100 beds at the Sidcup Hospital.

Canadian Hospitals in England—continued.

·	1915	1916	1917	Nov. 30 1918
SPECIAL HOSPITALS. Granville. Canadian Special Hospital. Opened at Ramsgate, November, 1915;				
transferred to and opened at Buxton, 8/9/17		800	1,048	1,440
Westcliffe. Canadian Special (Eye and Ear) Hospital. Opened December, 1915		339	353	374
Buxton. Canadian Red Cross Special Hospital. Opened 15/2/16		250	275	310
London. I.O.D.E. Hospital for Officers, 1, Hyde Park Place, W. Opened 8/5/16. Affiliated to Petrograd Hospital, November, 1918		24	24	
Etchinghill. Canadian Special Hospital. Opened June, 1916		!	620	1,060
Witley. Canadian Special Hospital. Opened October, 1917				600
Lenham. Canadian Special Hospital. Opened November, 1917		The state of the s		150
Petrograd. Canadian Red Cross Hospital for Officers, North Audley Street, London Opened November, 1918, with 175 beds; total, with affiliates, 226 beds				226
Total beds, Special Hospitals		1,413	2,320	4,184

Canadian Hospitals in England—continued.

	1915	1916	1917	Nov. 30 1918
CONVALESCENT HOSPITALS.				
Monks Horton. Opened 1915; became Canadian Command Depôt, 24/5/15; reopened as Convalescent Hospital, 21/6/17; closed 1/8/18	150		440	
Shorncliffe. Greenville Hotel, Red Cross Convalescent Homes and South End. Employed temporarily in 1915	500			
Bromley. Opened 11/5/15, closed 31/8/18	120	200	294	
Bushey Park. King's Canadian Convales- cent Hospital.				
Opened 27/12/15. Now Special heart and kidney cases (summer of 1917)		64	400	406
Uxbridge. Hillingdon House. Opened 21/9/15; taken over by R.F.C. in 1917		130	515	
Wokingham. Bearwood		400	400	700
Epsom. Woodcote Park. Opened for Canadian Convalescents; Section operated by C.A.M.C., 7/9/15		1,200	2,500	3,900
Putney Heath. Perkins Bull Convalescent Home for Officers. Opened June, 1916, Affiliated with				
Petrograd Hospital in November, 1918 Shorncliffe. Military Hospital Convalescent		17	43	
Section		379		
Hastings. The Hermitage. Opened December, 1915; evacuated 24/10/17			120	
Bexhill. Princess Patricia's Canadian Convalescent Hospital. Opened January, 1918				2,250
Matlock Bath. Convalescent Hospital for Officers. Opened 26/12/17				200
Total beds, Convalescent Hospitals	770	2,390	5,012	7,450

Summary of growth of Bed Capacity, Canadian, in England.

	As on June 1.			Nov. 30.
	1915	1916	1917	1918
Total beds. General Hospitals	624	3,367	5,951	9,447
" " Special Hospitals		1,413	2,320	4,184
,, ,, Convalescent Hospitals	770	2,390	5,012	7,456
Total, England	1,394	7,160	13,283	21,087
France and elsewhere	2,090	9,560	15,346	13,522
Total England, France and elsewhere	3,484	16,720	28,629	34,609

Hospital Ships.—In 1917 a Hospital Ship Unit was established. In March, 1917, the Dominion Authorities took over from the Admiralty two Hospital Ships for the transport of Invalids to Canada, each being provided with an establishment. The torpedoing of H.M.H.S. "Llandovery Castle" on June 27, 1918, arrested the service for several weeks; it has now been restored.

THE HELPERS OF THE C.A.M.C.

It would show a lack of appreciation of what is due and fitting, to conclude this account of the official agencies through which the Canadian Expeditionary Force has guarded the health of the troops and cared for the sick and wounded, without mentioning the wonderful manner in which the efforts of the C.A.M.C. have from the first been aided and encouraged by organisations and private individuals from one end of the Dominion to the other. Nor must we forget those in the British Isles, not Canadians, who have rejoiced in being able, by caring for her soldiers in their sufferings, to show their appreciation of the part played by the Dominion.

So generous and widespread has been this outpouring of help that it is impossible to record faithfully all the assistance which has been received, from great Dominion organisations and Provincial Governments at the one end of the scale, down to those whose loving care for the patient can only show itself outwardly in the work of their hands in the form of soldiers' "comfort bags," knitted scarfs and the like for those in hospital. Still more impossible is it to mention by name all

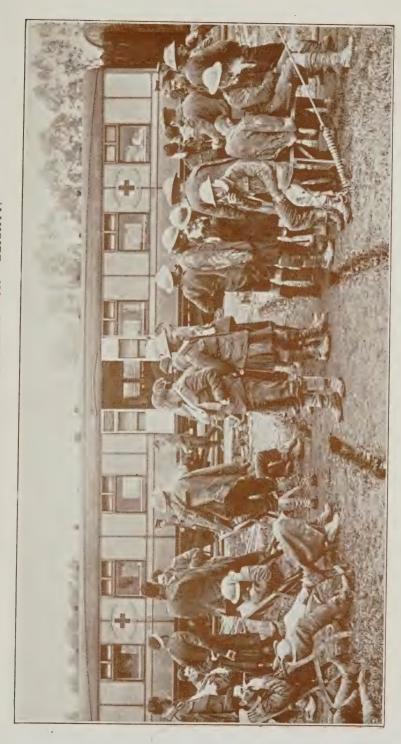
those who have paid visits to Canadians in hospital week after week, and month following month, to cheer them there and report upon their condition to the Canadian Red Cross. It is indeed only possible to indicate the many forms all this aid has taken.

First and foremost, as representing the Voluntary Aid afforded from every part of the Dominion, must be mentioned the Canadian Red Cross Society and its affiliated organisation, the St. John's Ambulance Association. The extraordinary extent and complexity of the work accomplished by these bodies are the subject of a separate chapter. Here, however, recognition must be given of the efficiency of their work overseas in Flanders and in France. There is not a Field Ambulance nor Casualty Clearing Station or Hospital at the Front but was heartfelt in its appreciation of the promptitude with which, once a need was expressed, that need was met. Whether it were dressings, articles of hospital clothing or invalid food, or delicacies to vary hospital fare, the want had only to be made known to be met with in little more than the time it took for the Red Cross Motor Transport to reach the Unit. Wherever possible, spacious recreation huts have been provided with stages for concerts, and games to occupy the patients' leisure. In England, the help of the Canadian Red Cross Society has shown itself on a vast scale in the provision of entire hospitals, together with their equipment and a considerable portion of their maintenance.

The greater part of the Duchess of Connaught Hospital, at Taplow, was in this way contributed by the Red Cross. A complete hospital for officers in London, with its equipment and maintenance, was the latest offer.

The Canadian Military Y.M.C.A. has more especially taken under its care the active soldier; nevertheless, many of the larger Canadian hospitals possess Y.M.C.A. Huts, and to their representatives much is owing for supervising and providing recreation and concerts for those patients able to be up and about. The Canadian Field Comforts' Committee is another body whose gifts have cheered Canadian patients.

Much good work has also been accomplished by the Imperial Order Daughters of the Empire. Their outstanding contribution to a single object alone is represented by the equipment of the Imperial Order of Daughters of the Empire Hospital for officers in London.



The Princess Christian Hospital Train. One of the many splendid trains which carried Canadian wounded from the Casualty Clearing Stations to the Base.



To the Canadians domiciled in England and their Canadian War Contingents Association, much too is owing. They have more particularly given their funds for the benefit of the sick and wounded, and in common with the Imperial Order Daughters of the Empire have contributed more especially to the upkeep and maintenance of one particular hospital, the Queen Alexandra Hospital, Beachborough, near Folkestone.

Passing from these National Associations to Provincial bodies, here first and foremost must be mentioned the Government of the Province of Ontario. To it the Canadian Army Medical Corps owes its finest and largest hospital in England, the great Ontario Hospital at Orpington (No. 16 Canadian General Hospital), with its 2,500 beds; a most notable gift.

Of other public bodies in Canada, special reference must be made to the Universities. Not merely have they given freely of the best of their teaching staffs in Medicine to form University Units, thereby throwing a heavy burden on those remaining behind and rendering it difficult to "carry on," but in addition they have raised sustentation funds and furnished various hospital Units with additional apparatus, conveniences and comforts, all tending to ensure that the work performed was of the best order, and that the patients were provided with the best treatment. The Universities concerned have given their aid as follows:—

McGill . . No. 3 Canadian General Hospital. Toronto .. No. 4 Canadian General Hospital. Laval .. No. 6 Canadian General Hospital. Queen's .. No. 7 Canadian General Hospital. Saskatchewan .. No. 8 Canadian Stationary Hospital. Dalhousie No. 7 Canadian Stationary Hospital. St. Francis Xavier College No. 9 Canadian Stationary Hospital. The Western .. No. 10 Canadian Stationary Hospital.

The number of local Societies, branches of the Canadian Club, Women's Institute, Ladies' Aid Societies, Church Societies, Business men's organisations, Friendly Society Lodges, which have contributed to the welfare of the sick and wounded, is so great that it would be invidious to mention single examples

There are, however, single individuals whose names must be mentioned. Thus Canada owes to Mr. John Walter, the head of the family which for so many generations has owned the "Times," the use of his great house and estate at Bearwood, for the purposes of a Convalescent Hospital; to Major Waldorf Astor, M.P., accommodation for the Duchess of Connaught Canadian Red Cross Hospital in his beautiful grounds at Cliveden, Taplow; and to Mr. Harold Kennedy, of Quebec, the lease of Bromley Park for a Convalescent Hospital. Particular acknowledgment, too, should be made of the debt owing to the Directors and employees of the well-known Massey Harris Company for the beautiful hospital at "Kingswood," Dulwich, including the house, furnishings and equipment complete in every detail, even down to the maintenance of the patients admitted. Thanks are also due for Clarence House, Roehampton, furnished by the Citizens of Ottawa under the supervision of Miss Lewis.

Sincere gratitude must also be offered to the owners of mansions throughout the length and breadth of the British Isles, who threw open their homes to convalescent officers and men of the Canadian Expeditionary Force. It has seemed as though the Old Country could not do enough to show its affection for Canadians and its appreciation of the part played by the men of the Dominion in the Great War.

Canadian Army Dental Corps. FUNCTION—FORMATION—RECORD.

The Canadian Army Dental Corps was organised early in 1915 to attend to all dental matters affecting the personnel of the Overseas Military Forces of Canada, and the appended statement showing the number of operations performed at the different clinics in France and England indicates the immense scale on which the Dental Corps has carried on its duties.

From July, 1915, when the Canadian Army Dental Corps began operations Overseas till December 31, 1918, the number of operations amounted to the substantial total of 2,255,442, including 96,713 operations performed on Imperial troops who, from casualty or from other causes, came within the sphere of the Canadian Dental Corps. This number, however, includes 49,449 scientific treatments for trench mouth in the Oral Pathology Department, and this great volume of work was accomplished by a comparatively small number of qualified dental officers and their assistants. In England, the Administrative Headquarters are in London, where the Director of Dental Services, Col. J. A. Armstrong, C.M.G., has the assistance of a Deputy Director and a Deputy Assistant Director.

In France, the personnel of the Canadian Army Dental Corps carried on their work principally at Field Ambulances, Casualty Clearing Stations, General and Stationary Hospitals, in the Canadian Forestry Units, in the various Units of Railway Troops, and at Base Camps. These widely dispersed duties were performed under the supervision of the Director of Medical Services at Canadian Corps Headquarters, who forwarded reports on all dental work to the Director of Dental Services, London.

In England, Clinics were established at the various Canadian Training Centres, Command and Discharge Depôts, Special Hospitals and Segregation Camps; and in London, for the personnel employed at the different Canadian administrative offices of the Overseas Military Forces of Canada, and for officers and men on leave from France requiring emergency treatment.

Every Canadian soldier on arrival in England, while putting in the prescribed time at a Segregation Camp, received a dental inspection and, if time permitted, his requirements were attended to there. If the work could not then be completed, information as to any further treatment necessary followed the soldier to whatever location he might be sent, and there the work was continued. Finally, he was again dentally examined before being placed on draft for France and either pronounced dentally fit or made so before leaving.

In addition to the General Clinics which handled the bulk of the work there were Special Clinics, akin to that at the International Co-operative Institution at Queen's Hospital, Frognal, where patients who had received such injuries as having the nose or chin shot away, received the very best treatment that medical and dental science could provide. By a combination of facial surgery and mechanical appliances the injured parts were restored and the lost parts substituted in such a way that not only was the patient enabled to masticate his food but unattractive personal appearance was greatly mitigated.

"Trench Mouth."—Infectious Stomatitis (Trench Mouth) was practically an unknown disease prior to the War, but the troops had not been long Overseas before this new trouble became manifest to a serious degree, and at one time the epidemic reached the alarming proportions of 10,000 cases. The C.A.D.C., therefore, inaugurated the Department of Oral Pathology, and as a result of microscopic diagnosis and patient perseverance in treatment of the disease it was practically controlled.

The problem presented by numerous cases of fractures of the jaw also became a serious one, and it was necessary to institute a Special Clinic at the Ontario Military Hospital, Orpington, to deal with this type of casualty, and excellent work was done in restoring to patients the lost function of mastication.

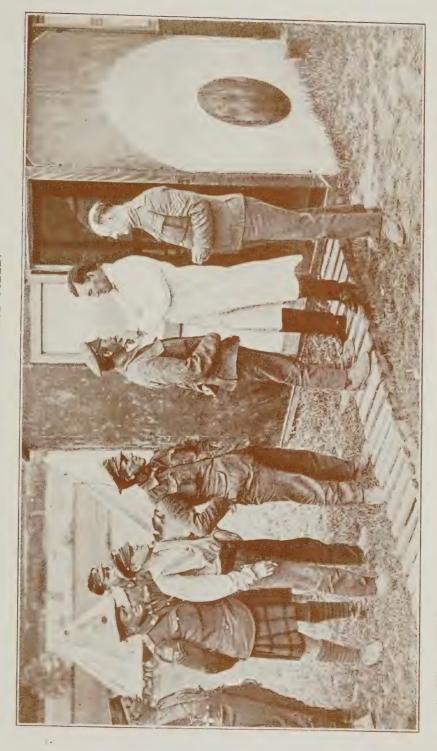
Again, previous to the War, many officers and men had been fitted by their private dentists with gold bridges and other dental appliances and in numerous cases these had to be replaced or repaired. To meet this situation, the necessary arrangements were made whereby, at no extra cost to the Canadian Government, this special work could be secured by the patient signing a form which authorised the Paymaster-General to deduct from his pay the bare cost of the material used.

The personnel of the C.A.D.C. has increased in proportion to the growth of the Overseas Military Forces of Canada, and the Dental Corps has expanded its sphere of professional usefulness according to the variation of the demand upon its services. Its strength on first coming Overseas was 30 Officers, 34 N.C.O.'s, and 40 Privates, and at the date of the signing of the Armistice it had increased to 223 Officers, 221 N.C.O.'s, and 238 Privates. Of this number there were in France 76 Officers, 76 N.C.O.'s, and 64 Privates, and in England 147 Officers, 145 N.C.O.'s, and 174 Privates.

The cessation of hostilities immediately reversed the aims of the C.A.D.C. Instead of making men dentally fit for War it turned its activities to making men dentally fit for Peace, and every Canadian soldier returning to Canada is accompanied by a document giving his exact dental condition at the date of his last inspection before embarkation.

The appended table gives statistics of the record of operations performed since July, 1915, and up to December 31, 1918.

	CANADI	CANADIAN ARMY DENTAL CORPS STATISTICS.	DENTAL C	ORPS STAT	ristics.		
	Fillings.	Treatments.	Dentures.	Prophylaxis.	Extractions.	Devitalizing.	TOTALS.
Total Dental Operations performed in France and England up to December 31, 1917 Total Operations perforal Operations performed and England and Englan	554,370	196,132	106,958	86,723	372,714	58,732	1,375,629
formed in England and France during 1918	379,395	159,792	57,585	100,387	153,399	29,255	879,813
GRAND TOTALS, December 31, 1918	933,765	355,924	164,543	187,110	526,113	87,987	2,255,442
Total number of cases t	treated for I	ORAL PATHOLOGY DEPARTMENT. cases treated for Infectious Stomatitis (Trench Mouth) during 1918 treatments required for these cases during 1918	PATHOLOGY matitis (Trenases during	ORAL PATHOLOGY DEPARTMENT. Ous Stomatitis (Trench Mouth) du these cases during 1918	rring 1918		8,546 49,449



An Officer of the Canadian Army Dental Corps attending to sufferers outside his hut, part of which was made from the canvas of a plane which crashed near the clinic.



Canadian Chaplain Services.

The Canadian Chaplain Services entered first upon its duties at Valcartier Camp in Canada in August, 1914, and 33 Chaplains accompanied the First Canadian Contingent to England in October of that year, although it was not until August, 1915, that authority was granted for the organization of the Chaplain Services on lines similar to those of other Branches of the Service.

In March, 1917, an Establishment was authorized in which the various religious denominations were represented as follows:—

				Ch	aplains.
Church of England					102
Roman Catholic					53
Presbyterian					58
Methodist					33
Baptist					14
Congregational.					2
Salvation Army				,	4
Russian					î
Undetermined			• •	• •	13
	• •	• •	• •	• •	
		Total			280
		Total			280

Since that date authority has been granted for 10 additional officers.

SPHERE OF OPERATIONS.

The Director of Chaplain Services, Hon. Colonel J. M. Almond, C.M.G., has been aided by four Assistant Directors and a Deputy-Assistant Director. Of the Assistant Directors one is in France, one in England and one on the Lines of Communication. In the Divisions at the Front and in the various areas in England, Senior Chaplains keep in close and intimate touch with the local activities, while a full staff of Chaplains was distributed to minister to patients in Canadian Hospitals and Canadian patients in Imperial Hospitals in large areas, such as London, Liverpool, Manchester, Birmingham and Edinburgh. No Canadian soldier has indeed been left without the ministrations of a Canadian Chaplain. It is also

gratifying that the various Canadian Churches have throughout been represented by many of their ablest Clergymen who have given themselves with whole-hearted devotion and enthusiasm to their work.

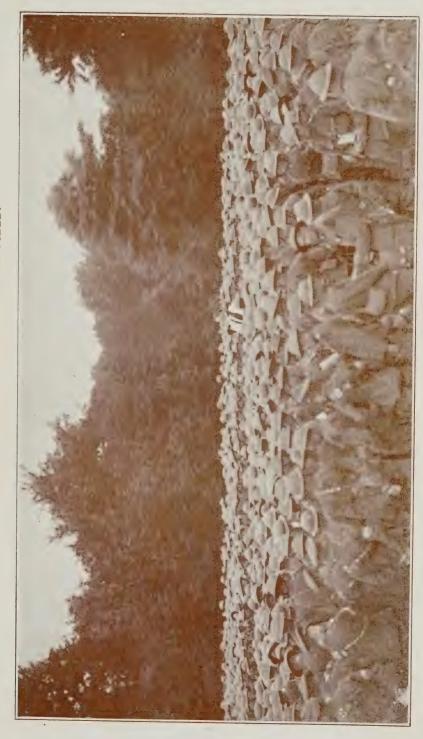
In the Field.—The Canadian Chaplains are classed as Non-Combatants, but the nature of their ministrations at the front may be gathered from the fact that of the 426 Chaplains who have served with the Overseas Military Forces of Canada, two have been killed in action, one has died of wounds, one was drowned while serving in a hospital ship, and two others died of sickness. In all 21 Chaplains have been wounded while discharging their duties in the front line.

During the later advances about 20 Chaplains were usually selected to accompany the troops into action, and their unfailing steadiness under fire and the example which they have offered of patience and humour, and oft-times heroism, in conditions far more trying to a non-combatant than to a combatant, has frequently done much to sustain and inspire the troops.

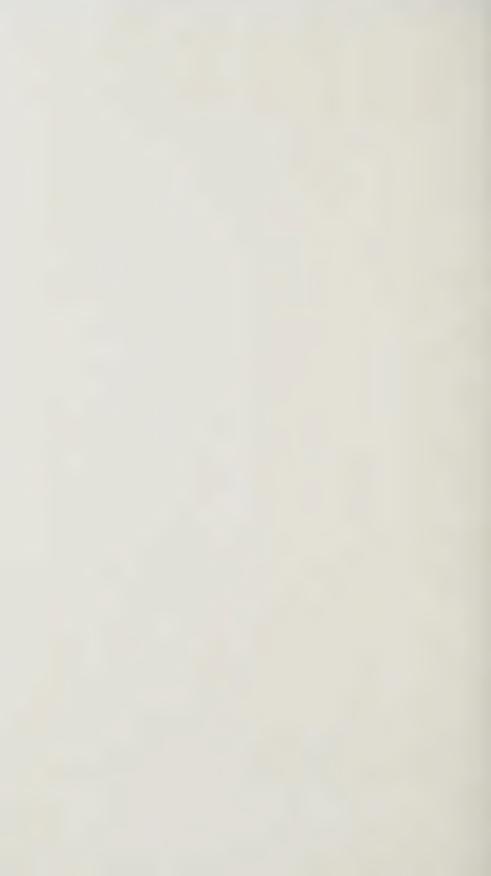
It must not, however, be supposed that the duties of the Chaplains on the battlefield were confined to affording an example of passive endurance; or even to the ministration of spiritual comfort. The duties assigned to the Chaplains were, as a matter of fact, of a decidedly arduous nature. It was their task to organize stretcher-bearing parties and to assist the Medical Officers. A number of them were commonly detailed to the Dressing Stations where they frequently remained for long periods without rest and sleep under heavy fire. Here their duties were both physical and spiritual. Here they bound wounds and gave the men such nourishment as they could take. Here they ministered to the dying, receiving messages to be sent to parents or wives, and were oftentimes loaded down with little personal effects, last little gifts which the owner desired to be sent home should he "Go West." The task of transmitting to the friends at home the last message from their dead, accompanied by a brief account of their passing, was regarded by the Chaplains as one of their most sacred duties; and the gratitude of the relatives and friends of the dead was oftentimes most touching. At such moments, too, the avenues leading to the soul stand wide open, and the spiritual adviser finds a welcome entrance.

To receive the whispered confidences of the dying, to utter a heartening word, offer a whispered prayer and to perform the solemn rites of Communion, were all a part of the Chaplain's

CANADIAN CHAPLAIN ON DUTY IN THE FIELD.



A great throng of Canadian soldiers listening to a Canadian Chaplain's address on the occasion of the 50th Anniversary of Dominion Day in France.



service in the battle-zone. To the Chaplain, too, fell the task of burying the dead and engaging in the exacting and frequently dangerous work of searching a battlefield for wounded men.

When the troops were in the training areas, or at rest behind the lines, every attention was given to parade and Voluntary Services, but in the day of battle the Chaplain's duties and spiritual ministrations were of a very different kind.

The Fruits of Labour.—In Hospitals and Casualty Clearing Stations the Chaplains had not only spiritual but social duties to perform. They provided games for the convalescent; they organized whist-drives and checker tournaments, while Boxing Nights and Literary and Debating Evenings all figure prominently in the Chaplains' Reports.

In addition they did much good work in London, where men are always pouring in on leave. Trains were met and accommodation and entertainment provided at Clubs and Hostels. During the month of July, 1918, over 10,000 men were met at various railway stations, and a great number of these taken on personally-conducted tours to the various places of interest in the great Metropolis.

Similar work was also undertaken in the provinces, and in the month of January, 1919, as many as 173 outings were arranged in Liverpool, 6,227 convalescent patients participating in these trips.

The fruits of their services may perhaps be best appreciated in the exceptional moral standard of the Canadian troops, and the Higher Commands have borne repeated testimony to the Chaplain's contributory share in this direction; for while they have invariably taken a foremost place in every educational movement and in all social and athletic activities, their main care has been the souls of which they were in charge, a duty which lies at the foundation of all worthy conduct and character.

Since the signing of the Armistice the Chaplains have realized, in common with other responsible Officers, the great importance of keeping the men interested, entertained and encouraged during the period of Demobilization. They are continuously moving about among the men, answering innumerable questions, and in many other ways assisting them in the solution of their problems. Commanding Officers have come to regard the Chaplain's services of the highest value,

and are not slow to give them credit for their helpful and steadying influence. The work which they have accomplished does not lend itself to tabulation, but it is safe to say that they have done for the Canadian Army a service of social, moral and spiritual value in every way equivalent to that which the Churches they represent contribute to the life of the Nation at home.

Honours and Awards.—Some idea of the place the Chaplains have made for themselves in the Overseas Military Forces of Canada may be gained from the honours and awards which have come to them. Five of them have been made Companions of the Order of St. Michael and St. George, one a Commander of the Order of the British Empire, nine Companions of the Distinguished Service Order; three were created Officers of the Order of the British Empire, 34 received Military Crosses, and two were awarded bars; one while serving in the ranks received the Distinguished Conduct Medal, and three the Military Medal. The Chaplains received 32 Mentions in Despatches, and the names of 13 others were brought to the notice of the Secretary of State for services in connection with the War—a total of 103 awards and mentions.

At the conclusion of hostilities there were 118 Chaplains in England posted to the various Training Areas and serving in Hospitals, Forestry Districts and other Areas. There were 175 Chaplains in France, 80 of whom were in the Corps and the remainder on the Lines of Communication.

Accountant-General's Branch.

The Accountant-General's Branch was organized on December 19, 1916, consequent on the appointment of a Minister of the Overseas Military Forces of Canada, and Colonel W. R. Ward, Director of Pay and Record Services, was appointed Accountant-General from that date, with the following instructions issued by the Minister and with the functions stated herein:—

- (a) Financial consideration of proposals affecting Establishments of Units and Departments of the Overseas Military Forces of Canada and of all proposals affecting expenditure generally.
- (b) Advice on financial matters to the other branches of the Overseas Department.
- (c) Advice regarding the general financial administration of the Overseas Military Forces of Canada, to ensure that all expenditure is properly authorised, and that proper steps are taken to safeguard public funds.
- (d) Enquiry, consideration, and advice regarding Pay and Audit Offices as may be considered desirable by the Minister.
- (e) Questions regarding pay and money allowances of the Overseas Military Forces of Canada, and decisions as to the proper rates under the Regulations.
- (f) Any proposals for amendments to Pay and Allowances and decisions as to the proper rates under the Regulations
- (g) Compilation of Financial Regulations and amendments thereto.
- (h) Decisions in consultation with representative of the Auditor-General of Canada in regard to writing off any over-payments of losses.
- (i) Communications regarding statements and other financial matters requiring the co-operation of the Department of Militia and Defence, Ottawa.
- (j) Distribution of Estates of deceased officers and men. The original instructions provided also for a financial review of contracts and agreements, etc., entered into by the

Department, but on the appointment of the Overseas Purchasing Committee in July, 1918, all questions referring to this subject were transferred to that Committee.

The original strength of the Accountant-General's Branch as authorised on December 19, 1916, was—

- 4 Officers,
- 5 N.C.O's and Men,
- 3 Civilian Stenographers.

On re-organization of the departments of the Overseas Military Forces of Canada in 1918 the establishment was reduced, and two Officers and four N.C.O's and Men were released for other services.

Revised Edition Financial Regulations.—As the Financial Regulations for the Force had become entirely out of date in 1917, a complete revision was undertaken, and in the latter part of that year, a new book was compiled by the Accountant-General, which was sent to Canada in the latter part of May, 1918, to obtain the concurrence of the Militia Department.

Regulations for Civilians.—The general question of employment of civilians is dealt with by the Accountant-General, of whom there are about 1,100 employed in the various Administrative Departments, exclusive of a large number in the hospitals.

To meet the changes arising in the labour market, increased cost of living, etc., it became necessary to reconsider the rates of pay, etc., and revised regulations for the employment and pay of civilians employed in the Overseas Military Forces of Canada were prepared and issued with effect from November 1, 1918.

Financial Arrangements with War Office.—Financial arrangements with the War Office have been under consideration throughout the year, and practically all outstanding questions relative to the incidence of cost and various operations of the Overseas Military Forces of Canada with the Imperial Authorities have been settled, and are now in the course of adjustment.

Establishments.—All questions of Establishments of Units and Formations in the Field and in the United Kingdom are submitted to this Department, and incidence of cost, pay and allowances of personnel and general financial effect thereon is reported to the Minister.

Civil Servants.—In connection with the decision of the Government to discontinue payment of Civil Service salaries, subsequently

amended by Order-in-Council, P.C. 1240 of May 21, 1918, which, after further consideration, has been held in abeyance till May 1, 1919, it became necessary to collect full particulars of all civil servants in the Overseas Military Forces of Canada. Captain H. M. Dunn came from Ottawa in August, 1918, with over 5,000 index cards of Civil Servants, and has worked under the Accountant-General in securing all particulars of payments made to these Civil Servants on account of military services. This has occupied a great deal of time and close attention, and all particulars have now been transmitted to Ottawa for the adjustment of their accounts, involving considerable recoveries of over-payments.



Canadian Army Pay Corps.

SEPARATE ACCOUNTS FOR EVERY OFFICER AND MAN OVERSEAS.

Prior to the outbreak of war in 1914, the Canadian Army Pay Corps, while it was an integral part of Canada's small Permanent Force, was only concerned in a very limited way with the Militia. The staff of the Pay Corps was, therefore, very small, consisting of a few trained experts capable of interpreting and applying the somewhat complex regulations which governed its activities. Thus, when the Expeditionary Force was organised it was called on to undergo the same strain and expansion demanded of every branch of the Service. This made it necessary to procure additional qualified financial or accounting staff to take care of the increased work, who not only had to familiarise themselves with existing regulations governing the disbursement of public funds, but at the same time had to cope with the new regulations which were constantly being promulgated.

Broadly speaking, the Canadian Army Pay Corps performs three cardinal functions:—

- (1) The paying of all debts incurred by the Canadian Government with contractors, with Imperial and other Dominion Governments, etc.
- (2) The making of all payments to the troops of the Overseas Military Forces of Canada and their dependants.
- (3) The adjustment of reciprocal accounts between the Imperial and other Governments, and the maintaining of records and statistics in reference thereto.

While the first of these functions entails much investigation and labour, the great bulk of the work and responsibility of the Pay Corps is involved in the issue of pay and allowances to officers, non-commissioned officers and men and their dependants. Every financial transaction between the Pay Corps and the troops is recorded in the central office in London,

(642)

the organisation and system of which, under the control of Brig.-General J. G. Ross, C.M.G., is set forth as follows:—

PAYMASTER GENERAL'S DEPARTMENT.

The duties and responsibilities of the Paymaster General's Department are as follows:—

- (a) Generally to administer and control the financial services of the Overseas Military Forces of Canada.
- (b) To be responsible for the proper accounting and disbursement of all Public Funds received for the pay, allowances and maintenance of the Forces.
- (c) To make arrangements for an adequate supply of funds to care for such disbursements.
- (d) To arrange and ensure that all reasonable safeguards are employed to protect the Public Funds from loss.
- (e) To make arrangements for and ensure the prompt consideration and settlement of all claims against Public Funds arising out of the activities of the Overseas Military Forces of Canada.
- (f) To prepare individual pay ledger accounts for all officers and soldiers of the Overseas Military Forces of Canada, and to collect the necessary information from which these accounts are prepared.
- (g) To render such statements, statistics and returns as may be called for in regulations or by the Minister.
- (h) To perform such other functions and undertake such other responsibilities as may be from time to time specially assigned to the Paymaster General's Department by the Minister.

The chart of the Paymaster General's Department herewith shows the organisation, in greater detail, of the major Accounting Divisions of that Department.

The Paymaster General is assisted in the performance of his duties by

The Deputy Paymaster General.

Assistant Deputy Paymaster General (2), England.

Assistant Deputy Paymaster General (3), England.

Assistant Deputy Paymaster General (1), France.

The functions of the Divisions and Sub-Divisions of the Department are as follows:—

1. **Deputy Paymaster General.**—The Deputy Paymaster General acts as the assistant to the Paymaster General, and is responsible for the general administration of the Pay Department and the supervision of its various sub-branches. He more directly deals with questions of policy, regulations, orders, rulings, etc., and interpretations thereof; also the maintenance of the Orderly Room, the military and civil personnel of the London Pay Office, and is responsible for the supervision of the chief Accounting Branch.

Rulings Branch—Duties and Functions.—To examine regulations and procedure authorised and adopted in the past for the purpose of co-ordinating and recording in permanent form the principles and practice by which the Pay Department is administered.

To collect and examine data required in the consideration of definite proposals arising out of the development of the Overseas Military Forces of Canada, and to make submissions to the proper authority for decisions thereon.

To interpret regulations in regard to specific cases or general conditions where any doubt exists as to their correct application

Personal Services.—This Sub-Division is responsible for the control and administration of the personnel of the Pay Department; for the maintenance of the records of service and for arrangements for transfers, promotions, appointments, etc.

Accounting Branch.—The chief Accounting Branch is responsible for the following:—

The maintenance of all Cash and Controlling Accounts, exercising an absolute control of all cash transactions from the time that funds are received by or on behalf of the Paymaster General from the Dominion Government, or any other source, including funds held "in trust," until they are finally distributed and accounted for.

The consolidating of all cash transactions of all Sub-Accounting Branches and officers reporting directly or indirectly to the Paymaster General.

The maintenance of adequate controlling accounts for the government of inter-departmental entries between all other Divisions or Sub-Divisions, which may or may not directly involve cash.

The preparation of all general financial statements, returns, statistics, etc., called for by the Minister, Overseas Military Forces of Canada, Auditor General for Canada, or in Regulations.

The prompt settlement of all claims, other than Officers' and Nursing Sisters' travelling and subsistence allowance claims, incurred in the British Isles by the Overseas Military Forces of Canada.

The maintenance of adequate records of services reciprocally performed by the Imperial and Canadian Forces, which are not periodically settled for in cash, so that when it is desired to effect a settlement adequate data will be available.

- 2. Assistant Deputy Paymaster General (2).—This Officer is responsible to the Paymaster General for the inspection of Command and Regimental Paymasters' offices, to ensure that all work in these offices is being efficiently, economically and properly carried on in accordance with regulations laid down.
- 3. Assistant Deputy Paymaster General (3).—This Officer is responsible for the compilation of the individual ledger accounts of the Officers, Warrant Officers, Non-Commissioned Officers and men of the Overseas Military Forces of Canada, and all detailed accounting and correspondence related thereto. The Division is sub-divided into two branches as under:—
 - (a) P.M. Branch—Officers and Nursing Sisters.
 - (b) Pay II. Branch—Other Ranks.
- (a) Duties and Functions of P.M. Branch—Officers' and Nursing Sisters' Pay Accounts.—To keep individual pay ledger accounts for all Officers and Nursing Sisters of the Canadian Overseas Military Forces, recording therein all transactions and information affecting the position of their accounts, and showing clearly at all times the amount owing to or by the Officer or Nursing Sister.

To obtain and receive the information in the form laid down by Regulations necessary for recording transactions covered in para. (a) above.

To remit monthly the amount of the balance of such transactions to the Banker or Agent for the Officer or Nursing Sister for the credit of his or her account.

To prepare such statements, returns of summaries and of transactions mentioned in para. (a) above as are called for by Regulations, or required for higher authority, internal accounting, reconciliation or statistical purposes.

To remit to the dependants of Officers or Nursing Sisters, or other payees at their request, either by way of Assigned Pay or special remittance, such sums from their accounts as may be authorised by them.

To remit monthly to the Officers' or Nursing Sisters' dependants residing in countries other than in North America Separation Allowance, as authorised by Regulations and Assigned Pay.

To see that the accounts of all Officers or Nursing Sisters killed, died of wounds, sickness or other causes, missing or discharged, are properly closed, and the balances accruing disbursed either to the Officer or Nursing Sister, if discharged in England; transferred to Canada for settlement there, if discharged in Canada; or advised to the Estates Branch to be finally disbursed in the case of Officers or Nursing Sisters killed, etc., in accordance with civil and military regulations.

To consider promptly and settle by remittance to Officers' or Nursing Sisters' Banks or Agents all regular claims for travelling expenses, maintenance, etc., submitted to the Paymaster General's Department.

Officers' Accounts.—While a commissioned Officer has ample opportunity to scrutinise his account, his finances have always been dealt with by the Branch in charge of them as conscientiously as in the case of Non-Commissioned Officers and men, and his assignments of pay, separation allowance, claims for expenses, clothing, etc., have been executed with scrupulous care.

In October, 1914, there were approximately 600 Officers' accounts to be dealt with. The number of these accounts rose in the intervening years between that date and the date of this report to over 16,000 accounts, and about 13,000 at the time of the compilation of this report. The actual issue of their pay, the posting of ledgers, etc., has never entailed a large staff or excessive labour, but the amount of subsidiary work which Officers' finances involve has necessitated the organisation of several sub-divisions of this Branch, and the employment of a military and civil staff of about 130. One section, for example, is responsible for the promotions and reversions in the "London Gazette," and Routine Orders have to be carefully watched in order that every movement or change of rank affecting an Officer's pay and allowance may be promptly and accurately

recorded. To facilitate this work, a card-index giving the history of an Officer's career, from the point of view of the Pay Department, has to be systematically maintained and kept up to date.

Every Officer of the Overseas Military Forces of Canada is invited to visit the Pay Office to examine his account and make enquiries, and he is afforded every facility to make himself familiar with the workings of the department which is responsible for his finances, as frequently, owing to active service conditions, he has not been able to keep in touch with the various changes and amendments to Regulations, and officers' rates of pay are extremely elaborate and vary considerably in the different appointments to which a Commissioned Officer may be delegated. It is obviously to the interest of officers that they should make themselves familiar with Pay Regulations and have some knowledge of the machinery of the Pay Department, but, as stated above, it is not always possible for them to keep fully up to date.

(b) Duties and Functions of Pay II. Branch—Pay and Allowances of Non-Commissioned Officers and Men.—To keep individual pay ledger accounts for all Warrant Officers, Non-Commissioned Officers and Men of the Canadian Forces serving Overseas, recording therein all transactions and information affecting the position of their accounts, and showing clearly at all times the amount owing to or by the soldier.

To obtain and receive in the form authorised by Regulations the information necessary for recording the transactions mentioned in paragraph above.

To prepare such statements, returns, summaries of transactions mentioned in paragraph above, as are called for by Regulations, or required for higher authority, internal accounting, reconciliation and statistical purposes.

To remit to the soldier's dependants or other payees at his request, either by way of Assigned Pay or special remittance, such sums from his account as may be authorised by him.

To remit monthly to soldiers' dependants, residing in countries other than North America, Separation Allowance and Assigned Pay.

To issue advances of pay to soldiers applying at the Paymaster General's Office in London whilst on leave, either from Local Commands, or from Divisions, etc., in France.

Properly to balance up and close the accounts of all soldiers killed, died of wounds or sickness, missing or discharged, and in the case of soldiers discharged in England to settle the balance accruing; in the case of soldiers discharged in Canada to advise balances to Ottawa for settlement, and in the case of soldiers killed, etc., to advise balances to the Estates Branch in order that they may be eventually disbursed in accordance with civil and military regulations.

In Pay II. Branch, as the department is called, a pay account is kept for every Warrant Officer, Non-Commissioned Officer and man, and the ledger-sheet reveals the whole financial history of each man—his daily earnings, cash payments made, the amount of pay which he has assigned and the amount of Separation Allowance payable to his wife or other dependant, the sums he may have invested in War Loan, and every other financial detail connected with his service.

When a soldier is discharged, he is rendered a statement of his account showing his balance, either debit or credit, and he is required to satisfy himself of its accuracy before final settlement is made. During the past year, summary sheets have been drawn from the ledgers, and the balances due to N.C.Os. and men forwarded to their Paymaster, and the soldiers paraded, and every opportunity given them to satisfy themselves that their accounts are right. Should there be any item of which a soldier is doubtful, he has only to ask in order to have it investigated and, if necessary, rectified. These methods have done much to inspire the troops with confidence in the Pay Office.

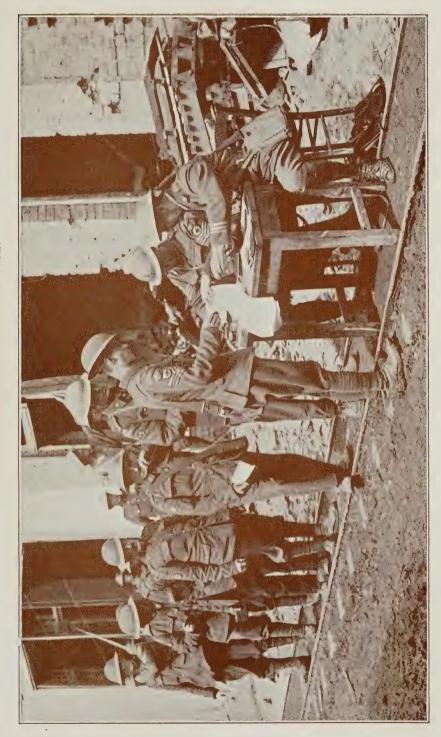
There are about 300,000 active accounts in the charge of Pay II. Branch, and the most scrupulous care has been exercised to keep the work strictly up to date and to preserve accuracy in the intricate operations connected with the disbursement, accounting and recording of many millions of dollars. Matters are complicated by the rates of pay, which vary in accordance with the military duties which a soldier may be called upon to perform. He may be employed as a clerk in a military office, and thereby entitled to an increased rate of pay. He may be entitled to special Working Pay as a field butcher, or to special Technical Pay as a skilled mechanic; and for all these increased rates of pay highly complex regulations have been drawn up involving their administration by experts.

There is one phase of the work which deserves special mention. This is the payment of sums of money to the wives

and other dependnats of soldiers of foreign countries serving with the Canadian Forces, and especial care has been taken to prove to these men's dependants that every consideration is being given them by the land of the soldier's adoption. Excluding those from the United Kingdom, the number of immigrants in Canada in 1914 was 242,256, of which 24,722 were Italians and 24,485 Russians, and when Canada entered the War it was only to be expected that many of her male Colonists from foreign countries would enlist in her Army. Naturally many of them were married and had wives and families living in almost every quarter of the globe, but the Canadian Government held it an obligation to provide for these dependants in the same manner as in the case of soldiers' relatives who were in Canada or in England, and upon the Pay Corps has devolved the intricate business of making such payments in the currency of some twenty different countries.

The same principles which govern the administration of Officers' pay hold good in the case of Warrant Officers, N.C.Os. and men. The soldier, as a rule, is unable to look after his financial affairs as closely as he might wish, for the reason that his energies are entirely absorbed in training for the field or in actual fighting, and his finances are therefore administered for him with the most scrupulous care and every endeavour is made to satisfy him that his interests are being looked after, and that his dependants at home are being taken proper care of.

- 4. Assistant Deputy Paymaster-General (1)—France.— This Officer represents the Paymaster General at the Canadian Section, General Headquarters, 1st Echelon, and also performs the duties of Command Paymaster, Canadian Troops in France, and is responsible to the Paymaster General for the immediate control and administration of the financial services of the Canadian Military Forces in France; for the supply of funds to Field Cashiers; for the circulation of rulings, orders and instructions received from the Paymaster General; for the inspection of Field Cashiers and Regimental Paymasters' offices; for the control and disposition of personnel, and for the maintenance of accounts with the Imperial financial authorities in France in connection with services, both financial and military, reciprocally performed by the Imperial and Canadian Forces.
- 5. Field Cashiers.—The Field Cashiers, of whom there are five—one for each Division and one for the Canadian Corps Troops—are responsible to the Command Paymaster, Canadian



Here they are being paid amidst the ruins of a village The Canadian Troops received their Pay regularly, no matter where they were. recovered for the French.



Troops in France, for the immediate administration and control of the financial services of their Divisions; for the supply of funds to, and the inspection of, the books and accounts of Regimental Paymasters; for the circulation of rulings and regulations promulgated by the Paymaster General, and for the collection and transmission of accounts and vouchers either to the Command Paymaster, Canadian Troops in France, or to the Paymaster General's Office in London.

6. Regimental Paymasters — France. — Regimental Paymasters are allotted to Units in accordance with provisions of Establishment, and are responsible for—

The issue of cash to troops and the submission of properly receipted vouchers in accounting therefor to the Paymaster General, London.

To consider and deal with all questions of a financial nature raised by officers or soldiers of the Units to which they are attached, and to advise and rule thereon when possible or, if necessary, to refer to the Field Cashier or the Paymaster General, London, for rulings, interpretation of regulations, or for such other action as may be necessary.

7. Command and Regimental Paymasters—England.—The functions and duties of Command Paymasters in England are in every way the same as those of the Field Cashiers in France, with the exception that Command Paymasters in England are supplied direct with funds by the Paymaster General, London.

The duties and functions of Regimental Paymasters in England are similar in every way to those of the Regimental Paymasters in France.

8. Staff.—In order to cope with the large mass of detail to be dealt with every day in the central office in London, a large staff of competent clerks is employed, the majority of them being soldiers who have seen service in the field and who before the War had some experience in office routine, bookkeeping, accounting and so forth. In the Branch which deals with the pay of N.C.Os. and men, about 1,000 men are employed, over 490 of them being engaged on the ledgers. The staff commences work at 8.30 each morning, and ceases at 5 p.m., after which a staff of auditors enters the building and reviews during the night the work accomplished during the day. The

following morning all observations made by the auditors are immediately dealt with and disposed of before any fresh work is commenced.

It will thus be noted that the greatest precautions are taken to ensure an accurate and careful control of all public monies disbursed on behalf of the Overseas Military Forces of Canada.

9. **Banking.**—The funds of the Overseas Military Forces of Canada are concentrated in London, direct credits being issued by the Finance Department at Ottawa to the Deputy Minister and Paymaster General through the branch of the Bank of Montreal, Threadneedle Street, London, whose Manager (Mr. G. C. Cassels) has afforded valuable assistance at all times on all questions of general policy arising in connection with financial matters in England.

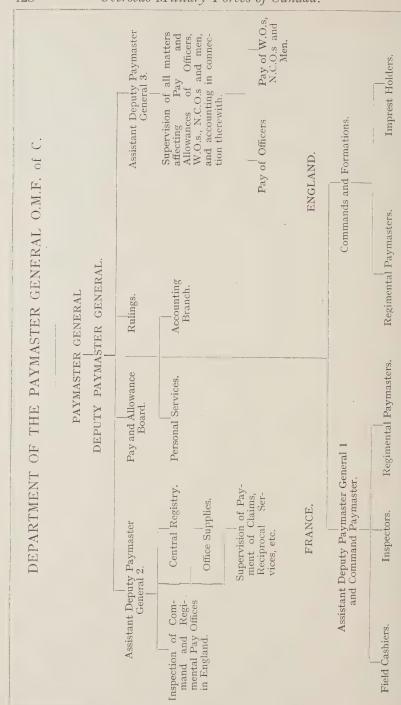
Cordial relations also exist with British banks, more particularly Lloyds Bank, Ltd., and Cox & Co., who, through the large number of their agencies throughout the country, have enabled cheques issued in regard to Separation Allowance, Assigned Pay and Leave Cheques, as well as the payment of ordinary Government accounts, to be cashed readily, to the great satisfaction of the numerous dependants and assignees

of officers and other ranks throughout Great Britain.

The greater activities, however, in connection with the payment of the ordinary purchasing accounts and the handling of the individual accounts of officers and nursing sisters, have been performed through the Manager of the Bank in Waterloo Place (Mr. Dudley Oliver). Approximately over 85 per cent. of the accounts have been handled by this Branch of the Bank, and the relations between Pay Office and the Manager have been of the most cordial nature, great assistance and cooperation having been rendered by him at all times; more especially in connection with the clearing of cheques with the various banking institutions in England. The co-operation and assistance afforded has tended in a large measure to assist in preventing the many complications which might naturally arise in dealing with the large number of accounts carried by the Bank for Canadian officers and nursing sisters, etc., especially in regard to the clearing of officers' chits cashed in France through the Waterloo Place branch of the Bank of Montreal, London. These were formerly cleared through Cox & Co. at Boulogne, and the new system has greatly increased the amount of work on this branch of the Bank of Montreal.

This work, however, has been cheerfully undertaken by the Manager, to the great advantage of both the officers, Overseas Military Forces of Canada, and the Pay Office.

Lloyds Bank, Ltd., Westminster House branch, through their Manager (Mr. W. Waldron) have been instrumental in handling many subsidiary accounts, such as payment of leave cheques issued in France, cashier's payments and Separation Allowance and Assigned Pay cheques, in this way rendering great satisfaction at all times to the members of the Canadian Overseas Forces



Department of the General Auditor.

The Department of the General Auditor was organised and administered by Colonel L. A. Dowie, and subsequently the Establishment was approved by Order-in-Council 1614 of 1917, and varied later by the Minister to meet changed circumstances.

The duties devolving on the Department were those consequent on the auditing of receipts and disbursements of Public Funds, as recorded in the books and accounts maintained by the Paymaster General, and also the audit and inspection of the Regimental Accounts of Units stationed in England.

The routine work of the Department has been delegated to Branches, the duties of which are as follows:—

Finance 1.—To audit all disbursements of Public Funds made by the Paymaster General, and to ensure that such disbursements are correctly classified in accordance with War Appropriations, Ottawa.

To audit deposits made to the account of the Receiver General in England.

To audit the monthly and annual consolidated statements, rendered to the Accountant and Paymaster General, Ottawa, by the Paymaster General, London, and latterly to the Auditor General of Canada, Ottawa.

To audit memorandum accounts of Imprests and Advances to be subsequently accounted for.

To audit receipts and disbursements in respect of all Trust and Suspense Accounts maintained by the Paymaster General.

To obtain refund of duty included in the purchase price of tea and sugar consumed by Canadian Troops in England.

Finance 2.—To audit the personal accounts of all Other Ranks and to verify the controlling accounts which are maintained to record transfers between Departments of the Pay Office, also the total payments by Accounting Officers of the Canadian Army Pay Corps with the aggregate postings to personal accounts.

Finance 3.—To audit the personal accounts of all Officers and Nursing Sisters, and to verify the total payments and deposits to accounts of Officers and Nursing Sisters with the aggregate charges to their personal accounts.

Finance 4.—To conduct special investigations and audits which are required by the Minister to be undertaken from time to time.

Regimental Funds Branch.—This Branch includes the personnel of the Regimental Funds Board which supervises the work of Regimental Audit Boards appointed under military regulations to audit Mess Accounts and Regimental Funds; it also ensures the correct application of such Funds and Assets, and issues Clearance Certificates to Commanding Officers.

In addition to these functions this Branch examines and records the proceedings of Boards held to determine responsibility for deficiencies of Quartermaster's Stores before approval is given by the General Auditor for writing off such deficiencies.

FINANCIAL TRANSACTIONS.

At the beginning of the War the Canadian Government expressed the desire of Canada to defray the cost of her Contingents Overseas, both in England and in France.

The cost of the Contingents naturally fell into three main classes, viz :—

- (a) Pay and Allowances, Pensions and War Gratuities.
- (b) The expenses of maintenance of personnel in England.
- (c) The expenses of maintenance of personnel in France.

Canada has defrayed the Pay and Allowances of all her troops serving both in England and France, and has met the charges payable in England in connection with Pensions and War Service Gratuities through the Paymaster General.

The troops in England have been maintained by-

- (a) The importation of stores, equipment, etc., from Canada.
- (b) The issue of stores, material, equipment, etc., obtained from the Imperial Government, for which detailed accounts have been rendered, also ancillary services which have either been paid by the Paymaster General or have been accepted as liabilities or contingent liabilities.

(c) Direct purchases of stores, material, equipment, etc., made and issued by the Canadian Administration Overseas and paid for by the Paymaster General.

With regard to the maintenance of the Canadian Troops in France, it was manifestly impossible to ascertain the precise costs, and it was therefore decided that a rate should be established at which the Canadian Government would pay the Imperial Government per man per day. This rate was intended to be the *per capita* cost to the Imperial Government of the whole of the Forces maintained by that Government in the Field in France, and was to be established by the War Office. It was to include the total cost of the troops, except Pay, Allowances and the Canadian liability for Pensions and War Gratuities

On account of the protraction of the War and the added cost, resulting from the increased consumption of ammunition and the costs of Heavy Artillery, the capitation rate has not been definitely established for the entire period.

In the meantime payments on account have been made through the High Commissioner to the Imperial Government from time to time pending the settlement of this outstanding question.

There are certain charges proposed to be made by the Imperial Government concerning which so far insufficient data has been supplied to admit of the acceptance of such charges by the Canadian Government, but these matters are now receiving the attention of expert accountants, and it is expected that they will be settled in the near future.

There are a number of services rendered by the Imperial Government to the Canadian Government, and *vice versa*, for which no accounts have yet been rendered. These accounts are now in process of formulation.

Canadian personnel have been employed in special technical services, and a large number of officers have been seconded for service with the Imperial Forces, such as the Royal Flying Corps.

Remarks.—Since the arrival of the Canadian Contingents in England, the disbursements of Public Funds by the Paymaster General have been audited by this Department.

As the Department was not created until 1915, some of the documents relating to 1914/1915 were returned to Canada without passing through the hands of the General Auditor. The Financial Instructions and Orders-in-Council, created and passed in Canada, relating to payments and the authorities for payment, have been carefully applied.

Certain difficulties, however, were experienced in interpreting and applying these, owing to the impossibility of anticipating in the regulations conditions resultant on the large increase in troops, their employment and location, and the changed conditions from time to time existing Overseas.

Other difficulties arose with regard to obtaining trained personnel.

Some over-payments have been made to the officers and other ranks of the Force, but the bulk of these are subject to recovery under the terms of the War Service Gratuity Order-in-Council, or before the cessation of the soldier's service. A proportion of such over-payments have been advised to Ottawa, and the balance are in process of notification. By comparison with the large disbursements of Pay and Allowances through the Paymaster General, these over-payments will be exceptionally small.

In view of the difficult conditions under which the work has been carried on, the receipts and disbursements have on a whole been recorded in a very satisfactory manner and carefully controlled. The disbursements on account of purchases of materials, etc., have also been audited, and the necessary documentary evidence produced in accordance with the Consolidated Revenue and Audit Act.

During the course of the various audits the matters requiring attention have been brought to the notice of the Departments interested, and have received the required consideration, or are in process of reply at present.

Canadian Record Office.

Every detail and incident of Military importance connected with the life or death of a Warrant Officer, Non-Commissioned Officer and man of the Overseas Military Forces of Canada, from the time of his arrival in England until such time as he is discharged, returned to Canada or becomes otherwise non-effective, is tabulated by the Canadian Record Office, Green Arbour House, London. The Director of Records is Col. A. Lorne Hamilton, C.M.G.

Records of Officers in the Overseas Military Forces of Canada are kept by a special Department of the Assistant Military Secretary's Branch which, for the sake of convenience, is accommodated at the Canadian Record Office.

Summarised, the work of the Canadian Record Office is as follows:—

Soldiers' Documents.—The collection, custody, verification and distribution of soldiers' documents involving:—

- (a) Collection and checking of documents of Drafts arriving from Canada.
- (b) Collection and forwarding to France of documents of Drafts proceeding to France, and receiving and distributing documents of men evacuated from France.
- (c) Checking Casualty Forms of Drafts proceeding to France.
- (d) Custody of various documents during the whole period a soldier is on the strength of Overseas Military Forces of Canada, and custody of his documents while he is in France or in Hospital in England.

Casualties.—The reporting of Casualties and tracing movements while in Hospital. Under this head are comprised:—

- (a) The compilation, after verification, of Daily Casualty Lists from reports received both from France and from the different centres in England. This includes the reporting of transfers of Casualties from one Hospital to another.
- (b) Notification of the next-of-kin when resident in England.

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- (c) In case of death, in England or France, registering the location of the grave, and obtaining details of the circumstances of death.
- (d) Making enquiries for a period of six months in respect to men reported "Missing."
- (e) Compiling and distributing lists of men invalided to Canada, and returned to Canada.

Card Index.—A Card Index reflecting the names of all personnel of the Overseas Military Forces of Canada, effective and non-effective, is maintained. This Department is, therefore, enabled to answer multifarious official and unofficial enquiries with the least possible delay.

Mail.—The re-direction of all mail, letter and parcel, for Casualties evacuated from France, and the re-direction of all mail, after tracing and identifying addresses, not previously delivered on account of being insufficiently or incorrectly addressed.

Honours and Awards.—The maintenance of a complete record of all honours and awards gained by Members of the Overseas Military Forces of Canada, and the custody and distribution of medals and war badges. The distribution of "King's Certificates," given to every Officer and man honourably discharged on disability, is also entrusted to this Office.

Miscellaneous Duties.—The carrying out of the following miscellaneous duties:—

- (a) The compilation of the Wastage Return for the entire Force.
- (b) Compilation of various Statistical Returns of Strength, Casualties, etc.
- (c) Custody of War Diaries and confidential documents of all units.
- (d) Supervision of the Office System and Records of all Regimental Depôt Groups in England.
- (e) Provision of quarters and staff for the Director-General of Medical Services Staff at Record Office.
- (f) Checking proceedings of Medical Boards and diagnoses by Hospitals.
- (g) Verification of Service chevrons to which a soldier may be entitled.

Statistics of Duties.—The following figures for the 12 months ended December 31, 1918, give an idea of the volume of work undertaken by the Record Office:—

New records created	80,875			
Total number of records maintained	420,913			
Letters and Packages received	709,507			
Letters and Packages despatched	821,271			
Letters re-directed	2,250,618			
Parcels re-directed	120,091			
New files created by Registry	25,140			
Entries in Casualty Lists sent out both in France and in England:				
(a) Officers	17,687			
(b) Other Ranks	341,275			
Burial Reports received and registered	19,435			
Map locations of graves prepared and passed				
to Graves Registration Branch	19,595			
Enquiries answered in respect to Personnel	754,571			
Medals received for disposal	3,713			
War Diaries received for custody	2,932			
Boxes and parcels of confidential and historical				
documents received	811			



Estates and Legal Services Branch.

DEPARTMENT WHICH SERVES AS A SOLDIER'S LEGAL ADVISER OVERSEAS.

It is, perhaps, as well that the Estates Branch has not loomed too large in the eye of the Canadian public, for while it acts as official guide, philosopher, and friend in all legal matters to all Canadian soldiers Overseas, it also performed the sadder task of acting as executor to those who fell in battle. The latter is a contingency now mercifully past, but the Estates Branch, in charge of Lt.-Col. S. G. Robertson, Director of Military Estates, still acts as executor to those soldiers whom fate may overtake before they can embark for home.

It is not too much to say of this Department that not only has it been of great service to the Canadian troops, but of considerable comfort to many Canadian families in time of trouble.

When a soldier was killed, it might be in some forward outpost, in No Man's Land or in the darkness of the front trench line at night, an officer or non-commissioned officer first secured the identity disc which every soldier carries round his neck or wrist, and then carefully collected all the little personal articles which the fallen man had carried with him into the line—his watch, his ring, and, perhaps, a pocket-book with a few treasured photographs.

These were then taken to Company Headquarters, whence they were forwarded to the Battalion Paymaster, by whom they were ultimately transmitted, together with the man's kit, to the Estates Branch in London. From London they were despatched to Ottawa, whence those precious relics, which mean so much to many a bereaved wife or parent, were forwarded to those entitled to them.

It was not, of course, always possible to recover these personal belongings, especially when a soldier fell in a big offensive action. Every possible care, however, was taken to secure them, and if an enquiry was received by the Estates Branch in respect to some particular article every effort was at once made to trace it. In any case the fact that such an immense number of these articles was safely conveyed from

those who had fallen to those whose property they had become in Canada is striking testimony to the systematic methods which were employed.

In the course of its history, too, the Estates Branch has been made the depository of one quarter of a million Canadian soldiers' wills.

Before an officer, N.C.O., or man proceeded to France the Paymasters of the different Units were required to forward to the Estates Branch a roll showing where each soldier had deposited his will. In the case of those soldiers who had made no wills the Paymasters had instructions to procure them for them, blank forms of will and copies being provided for this purpose.

The originals of all wills were then placed on file at the Estates Branch, and in the event of a soldier being reported killed four copies of the document were at once prepared. Of these one was passed to the Canadian Record Office for filing, another to the Section which had charge of the deceased's estate on hand, while the original and two copies were kept at the Wills Branch.

In the event of the beneficiaries residing in Canada the original will or a certified copy was forwarded, together with the kit and personal effects of the soldier concerned, either to the Militia Council at Ottawa or to the deceased's own executors for the purpose of probate. In the event of the beneficiaries residing in the British Isles the kit and personal effects were dealt with by the Estates Branch under the terms of the will.

Lawyers of Standing.—In addition to these duties the Estates Branch has done, and is still doing, much valuable work for the Canadian soldier. It stored surplus baggage when he proceeded to France, and through its Legal Department it is ready at all times to give advice on points arising out of the laws of any Provinces of Canada or in respect to the laws of England. It will also, when so desired, draw up any legal documents in connection with his private affairs which a Canadian soldier may require while overseas. It will, therefore, be seen that its staff must include officers versed in the laws of the different Provinces, and that the importance attaching to their advice and decisions requires that they shall be lawyers of recognised ability and standing.

Up to May, 1915, the duties of this Branch were carried out by the Canadian Pay Office, but the rapid increase in the

work and the absolute necessity for meticulous care in respect to technical details necessitated a considerable development.

Early in 1916 it became necessary to establish an Estates Branch at Ottawa, and towards the end of the same year the Branch in England passed nominally to the Accountant-General.

By November, 1917, it became absolutely essential to make the Estates Branch a separate Department, and finally authority was given for an Establishment permitting of 12 officers, 83 other ranks, and 80 civilian employees. That, of course, was to provide for days of pressure, but the cessation of hostilities greatly lessened the work of the Branch and the strength of its staff has consequently been proportionately decreased.

In November, 1918, the department was given the name of Estates and Legal Services Branch, Overseas Military Forces of Canada.



Overseas Purchasing Committee.

CONTRACTS BRANCH, OVERSEAS MILITARY FORCES OF CANADA.

Prior to 1918, the Chief Purchasing Officer of the Quartermaster-General's Branch was authorised to purchase all supplies for the use of the Overseas Military Forces of Canada in the British Isles, requisitions for the same having been first approved by the head of the branch of the service requiring them.

While, owing to the efficient manner in which this system was administered, the public was being amply protected, yet it was felt that it would be better to place the authority for purchasing stores under a department distinct from the department responsible for the receipt, issue and custody of them. It was also observed that a certain duplication in the accounting system could be dispensed with by the formation of a separate department.

Accordingly, the Minister, with the concurrence of the Overseas Military Council, authorised the formation of a branch to be known as the "Contracts Branch," such Branch to operate under a Committee to be known as the "Overseas Purchasing Committee," upon which was imposed the duty of supervising, directing, inspecting and passing upon the proposed actions and operations of the Contracts Branch. The Committee is composed of such persons as the Overseas Minister may from time to time designate, and at the present time consists of three members. The Committee keeps complete minutes of all contracts approved by it and as far as practicable such minutes are similar to those of the War Purchasing Commission of Canada.

Subject to the approval of the Committee as above mentioned, all contracts in the Overseas Military Forces of Canada in reference to transportation clothing, equipment, arms, guns, ammunition, horses, munitions and materials of war, supplies of every kind and accommodation, made subsequent to August 1, 1918, are entered into by the Director of Contracts, the head of the Contracts Branch.

In respect of all contracts made, the following regulations obtain as far as practicable:—

Regulations.—

- (a) Tenders are called for and opened in the presence of the Director and some officer nominated by the Purchasing Committee.
- (b) Purchases are made and contracts given at the lowest price offered.

These regulations are not departed from except in cases of emergency due to military considerations of the moment, or for any other given and sufficient reason, and in any such case the grounds for the departure must be clearly reported.

No contracts are made except upon a requisition signed by the head of the Department of the Overseas Military Forces of Canada concerned, who is responsible for shapes, sizes, quality and quantities. Such requisition states the articles and materials needed, the quantity and description thereof, and the time and place of delivery, or the nature of the service to be contracted for.

The Director of Contracts has no authority to change or vary such a requisition, but he may in respect thereof make, through the Overseas Purchasing Committee, such representations as he sees fit.

Procedure.—Generally, the procedure by which clothing, equipment, arms, guns, ammunition, horses, munitions and materials of war, and supplies of every kind, are obtained, and all contracts for transportation, made within the scope of the powers and authority of the Minister, is similar to that obtaining in Canada, whereby the various branches of the Militia Department requisition on the Director of Contracts as necessity arises.

The procedure in operation, covering the purchases made other than by formal contract, is as follows:—A demand for supplies having been received from authorised sources approved by the head of the Branch of the Service making the demand, particulars of the commodities required are forwarded to the best known sources of supply, with instructions to return tenders within a specified time. Three or more tenders are usually called for. The tenders when returned are reviewed by the Director of Contracts, who places his recommendation as to which should be accepted, before the Overseas Purchasing Committee. On receiving the sanction of the Committee for the acceptance of a

tender, a purchase order is issued by the Director of Contracts to the Contractor and also to the Receiving Depôt, as a notification to that Depôt that their original requisition has been acted on, and as an intimation of the source from which the goods will be received. On receipt of the goods, or as the case may be, the Officer in Charge of the Receiving Depôt completes the receiver's report giving a "good order receipt," if the goods are correct, or a deficiency report, if otherwise. In the latter case the Director of Contracts takes the necessary action to secure compensation for the deficiency claimed.

The Director of Contracts then furnishes the Contractor with a blank invoice form. On this invoice being returned to the Director of Contracts, it is checked against the purchase order, and if correct, forwarded to the Officer in Charge of the Receiving Depôt for a certificate of receipt. When the invoice is returned by him to the Director of Contracts, the certificate of price is attached and the invoice passed to the Officer in Charge of Accounts.

A permanent docket is kept for each transaction, and when the transaction is complete, the docket is signed by the Director of Contracts and passed to the Officer in Charge of Accounts to be filed as a permanent record.

Contracts for Supplies Delivered during Extended Periods.—
The maintenance of Canadian troops in training areas and hospitals in England, equipped and maintained by the Canadian Government, renders it necessary to provide that certain supplies and services be delivered or performed by Local Contractors during an extended period. The delivery of these supplies and the performance of Local Services are operated under the direction of the Director of Supplies and Transport, and the Overseas Purchasing Committee has approved of the following procedure governing Local Contracts:—

Tenders for such contracts are called for by the O.C., C.A.S.C., Local Area, and are received and opened upon a day appointed by the O.C., C.A.S.C., in the presence of the D.A.Q.M.G. of each Local Area. Both officers engaged on this day affix their signature to each Tender under the consecutive number entered thereon, and the O.C., C.A.S.C., prepares and schedules all contracts received, and makes a recommendation for the acceptance of the most advantageous Tender and forwards the documents to the Director of Supplies and Transport, who reviews the contracts

and makes further recommendation to the Director of Contracts. The Director of Contracts submits his recommendation to the Overseas Purchasing Committee as to which, if any, of such Tenders should be accepted, and the Overseas Purchasing Committee gives a final decision. The Director of Contracts notifies the accepted and rejected contractors of the result and also notifies the officers and Departments concerned.

The contracts above referred to are principally for such supplies as Milk, Ice, Laundry, Lighting, Heating, Gas, Coal, Conservancy and occasionally local Fish and Vegetable Supplies, and such other services or commodities as may from time to time become necessary for the subsistence or maintenance of Canadian troops.

Contractors' Invoices.—Contractors are instructed to submit Invoices periodically for the commodities supplied or services rendered by the authority of accepted contracts. These Invoices are checked against the original accepted Tender and, if correct, forwarded to the Department concerned for certificate of receipt. They are afterwards completed with certificate of price and passed to the Officer i/c. Accounts who verifies the mathematical calculations, and submits the same to the Overseas Purchasing Committee in order that the accounts may be noted for payment and finally passed to the Paymaster-General for payment to the contractor.

War Office Contracts.—An arrangement was entered into between the Imperial Authorities and representatives of the Canadian Government in 1914, whereby certain commodities from Imperial Store Depôts would be supplied to the Canadian Forces on a basis as agreed upon. This arrangement has been continued until the present time.

Departmental Records.—The Director of Contracts maintains a Commodity Record Book for each Department of the Service. This record is built up from the details shown on the purchase orders or contracts, the purchases for each Department being classified under certain specified sub-headings, and the values of the purchases totalled monthly. These monthly totals form the basis of the Monthly Departmental Report made by the Director of Contracts to the Overseas Purchasing Committee.

THE ACCOUNTS BRANCH.

Organisation.—On the creation of the Overseas Purchasing Committee, mentioned in the last Section, the Accounts Department of the Quartermaster-General passed under its supervision.

This Department had at that time an authorised Establishment of 4 officers and 22 other ranks, but on its reorganisation it was possible to reduce the required Establishment to 2 officers and 16 other ranks. A complete revision of the entire Accounting System as previously carried on was effected with a view to incorporating the necessary record keeping for the Medical and Dental Services, which had not been previously included in the activities of the Accounts Department when under the supervision of the Quartermaster-General.

System.—Under the system at present in operation, a complete record is maintained of the purchase of all supplies and commodities and the receipt and distribution of the same, thus making it possible for the Purchasing Committee to be assured at any time that the accounts which they have approved for payment, represent the cost of commodities which have been properly distributed and actually consumed by the Overseas Military Forces of Canada in England.

The Accounts Branch also maintains in itself complete records from which can be ascertained, under separate heads, the total amounts of the various commodities purchased. The ledgers kept contain full information in regard to Contractors' accounts, so as to prevent any possibility of duplication of payments, and the necessary information as to the quantity of dutiable commodities purchased on which a rebate of duty is reclaimable.

Figures can also be furnished showing at any time the total amounts passed for payment on behalf of the different Services.

All invoices covering purchases are forwarded to the Accounts Branch, properly certified, by which they are recorded so as to show—

- (a) The total cost of the commodities purchased.
- (b) The total liability to the different Contractors, and in addition the total expenditure from time to time made on behalf of the different Branches of the Service.

Such invoices are then checked and submitted to the Purchasing Committee for approval for payment, after which they are passed to the General Auditor for pre-audit and by him to the Paymaster-General for payment.

Monthly Returns are forwarded to the Accounts Branch by Sub-Depôts and Departments showing in total the receipts and issues of commodities received by them for distribution. These Summaries are compared with the commodity accounts in the ledgers and with the actual invoices, thus affording a complete check on the purchases to ensure that everything bought has been properly accounted for.

The method of accounting with reference to Mechanical Transport Stores and Stationery Stores is suitable to the transactions of these Services, as is also that in force in connection with the Medical and Dental Stores.

This Department also keeps a check on claims for refund against the Imperial Authorities for Commodities returned to them and also, in connection with Engineer and Typewriter Services, for work chargeable against the Imperial Government.

The Canadian Military Funds Trust.

- 1. By deed of trust executed on November 20, 1917, the Minister of the Overseas Military Forces of Canada, the High Commissioner for Canada and the General Officer Commanding the Canadian Forces in the British Isles, were appointed Trustees to receive all sums of money (other than regimental funds) which might from time to time become payable by the Navy and Army Canteen Committee, the British Expeditionary Force Canteens, or any other organisation, body, person, or persons, for the general benefit of the members of the Canadian Military Forces, the same to be redistributed and used in the discretion of the Trustees for any purposes or objects which they consider would benefit the Canadian Military Forces or their dependants.
- 2. In January, 1917, an agreement was made with the Army Canteens Committee that they should take over and conduct all regimental institutes occupied by Canadian troops in England under the following terms:—
 - (a) Pay rebate monthly at the rate of 10 per cent. on the total takings in the Canteen.
 - Four-fifths of this rebate is paid direct to the Commanding Officer of the Unit for the benefit of the men, and the remaining one-fifth is paid to the Canadian Military Funds Trustees.
 - (b) Pay to the Canadian Military Funds Trustees from any trading profits, which may from time to time be determined by the Army Council as available for distribution, a pro rata sum which shall be arrived at by the relative proportion which the Canadian troops in the United Kingdom have contributed to the turnover.
- 3. The Military Funds Trustees Board was established for the purpose of receiving the amounts payable under 2 (a) and (b) above, and up to the end of December, 1918, the Trustees had received from the Navy and Army Canteen Board the sum of about £24,000, being the rebates due for period January 1, 1917, to June 30, 1918. It is estimated that a further sum of about £9,000 is now due for the half-year ended December 31, 1918.

In addition to these amounts there is a sum of £36,960, credited in the books of the N.A.C.B. to the Canadian Forces as undistributed profits for the year ended December 31, 1917, and it may reasonably be expected that a similar amount will be available for the year 1918.

- 4. An agreement was also made in January, 1918, between the Expeditionary Force Canteens which operate in France and the representatives of Canadian, Australian and New Zealand Forces, that the contingents of the Overseas Forces should receive their profits as full partners in the organisation at the end of the War. It is impossible to say what amount will be available for distribution until the winding up of the affairs of the Expeditionary Forces Canteen Board.
- 5. The Military Funds Trustees Board has decided that it is desirable to retain its funds, as far as possible, for transfer to Canada to meet cases of relief and assistance to soldiers and their dependants arising after the War. Up to date the only amount expended has been a grant of £750 to Mr. R. B. Barron for the relief and assistance of the dependants of Canadian soldiers in the British Isles since the beginning of the War. Mr. Barron has devoted the whole of his time as a voluntary worker in this Cause.

Navy and Army Canteens.

When the first Canadian Contingent arrived in England in 1914, and went into camp at Salisbury Plain, all the canteens there, as at all the other military camps in the British Isles, were conducted by civilian contractors. The canteens were then unattractive places. They were unfurnished, and in no way could be rightly called Soldiers' "Clubs," which the Army authorities intended the canteens to be. The supplies were very limited, and the quality of the goods sold was far from satisfactory.

It was difficult in the early days of the War to make any drastic changes, but two years later an official organization was created to supervise as far as possible the activities of the canteen contractors. This organization standardized the quality of the goods sold, controlled the prices, and in general carried out its mission satisfactorily. It was, however, found that it did not possess sufficient authority, and the Army Canteen Committee was inaugurated. This committee had wider powers, but was still only a supervising committee.

As time went on it became clear that the profits which were being made by civilian contractors should, if possible, be made by the Army, and the Army Council decided, during the latter part of 1916, that the whole of the canteen organization should be undertaken officially and financed by the Treasury. As a result the powers of the Army Canteen Committee were so extended that they were to conduct the canteens direct. The stocks of the civilian contractors were taken over by the committee, and within the course of two months practically the whole organization had undergone a change. The benefits accruing from the new system soon became apparent. The canteens developed into real "Clubs" for soldiers; the profits made by the Army Canteen Committee were all held in trust for the troops, and large sums of money were spent in painting and furnishing the various premises. Further, prices were controlled and the quality of the goods standardized, so that the complaints which in the past had been rife, both as to overcharges and the poor quality of the goods supplied, rapidly diminished.

Questions then arose as to whether the Canadian Military Authorities should undertake the conduct of their own canteens or whether they should become partners in the operations of the Army Canteen Committee. The matter was considered very carefully, and the whole of the facts placed before the Authorities of the Overseas Military Forces of Canada, who finally decided that a representative of the Canadian Overseas Military Forces should be appointed a member of the Army Canteen Committee, and that the Canadian Forces should become full partners in the operations of the committee in the same way as the Australian Overseas Military Forces had already become partners.

The chief reasons for these decisions were as follows:—

- 1. The difficulty of creating a new organization to deal with the matter on the scale required.
- 2. The undesirability of causing competition in already restricted markets.
- 3. The necessity of using personnel which was urgently required for other purposes.
- 4. The fact that the Canadian Headquarters were satisfied with the personnel of the new Board and with the lines upon which they conducted operations.

Towards the middle of 1917, the functions of the Army Canteen Committee were extended to the Navy. The name of the committee was then changed to the "Navy and Army Canteen Board."

The principal financial arrangements between the Canadian Overseas Military Forces and the Navy and Army Canteen Board are:—

- 1. A rebate of eight per cent. of the gross takings is returned to the unit using the canteen to be spent on extra messing, an additional two per cent. being paid to the Canadian Military Funds Trustees Board for the benefit of the men.
- 2. Of the total yearly profits of the Board a percentage representing their proportionate share is returned to the Canadian Military Funds Trustees Board.

In many camps, including Bramshott, Witley and Kinmel Park, the Board erected theatres and conducted high-class entertainments for the benefit of the troops, all the expenses being borne by the Board.

Payments made by the Board to the Overseas Military Forces of Canada in 1917 and 1918 were—

1917.				
	£	s.	d.	
Rebates paid direct to Units on an				
eight per cent. basis	58,572	14	10	
Rebates paid to the Canadian				
Military Funds Trustees Board				
on a two per cent. basis	14,821	3	5	
Share of total net profits of the				
Board due to the Overseas				
Military Forces of Canada	36,960	0	0	
Total	£110,353	18	3	
1918.				
	£ s.		d.	
Rebates paid direct to Units on an				
eight per cent. basis	73,997	9	6	
Rebates paid to the Canadian				
Military Funds Trustees Board				
on a two per cent. basis	17,978	4	9	
Total	£91,975	14	3	

The share of the total net profits of the Board for 1918 due to the Canadian Military Funds Trustees Board was not determined at the date of the completion of this report.



Canadian War Records.

SCOPE OF ACTIVITIES.

The activities of the Canadian War Records Office, under the direction of Lieut.-Colonel Lord Beaverbrook, the Officer in Charge, have been departmentalised under two general branches, namely—

- (1) The collection and compilation of historical data relating to the Overseas Military Forces of Canada, and
- (2) General Publicity.

The following table will show at a glance the departments:—

. I.—Collection and Compilation of Historical Data.

Historical Section—

- (a) War Diaries.
- (b) Histories.
- (c) Records.
- (d) Library.
- (e) Honours and Awards.
- (f) Collections.
- (g) Parcels.
- (h) Officers in France.
- (i) Photographs.
- (j) Prisoners of War.

II.—GENERAL PUBLICITY.

- (a) Literary.
- (b) Publicity.
- (c) Topical Films.
- (d) Exhibitions.
- (e) Canadian Daily Record.
- (f) Canadian War Memorials.

HISTORICAL SECTION.

(a) War Diaries.—Foremost among data collected by the historical section are the War Diaries; some 300 of these have been received each month. To-day there are on file some 10,000 diaries and, roughly, these diaries are treated as follows:—

Upon their arrival they are accompanied by a check list; this list is carefully gone over in order to see that the appendices attached to the file correspond with a number stated in the check list. After registration they are filed in their respective Unit folders. In the event of a Unit ceasing to render a diary, the authority is entered in the register, notes of which are kept and the missing parts immediately asked for. A list is also made of any duplicates sent instead of originals, in order that an exchange may be effected. The diaries are then very carefully read (1) in order to discover any technical defects; (2) to form an accurate estimate of their historical value.

From time to time reports are submitted covering individual errors and omissions, accompanied by recommendations for improvements and suggestions. Photostat copies are made of the portions most valuable from an historical standpoint, in order to prevent wear and tear which inevitably follows usage.

In addition to the registering and copying of diaries, other registers are compiled from the diaries themselves. All Operation Orders are listed in this way, that missing ones may be secured. A similar register is kept of maps and plans. Finally, a card index is also kept showing the Commanding Officers of the chief combatant units in France. This section possesses unrivalled facilities as a bureau for historical research. structive historical work is carried on without cessation. comprises (1) historical synopsis of various units, and (2) elaborate and comprehensive notes of the great actions in which the Canadians have played a leading part. Clarity and conciseness are the chief factors in notes of this kind, but due attention is given to all essential details. Maps required are drawn by a skilled cartographer from information contained in the diaries. Accommodation is provided for authorised officers and others to do historical research work. Thus, it will be readily seen that the history of each Unit is kept in compact form for ready reference. Monthly reports and diaries of the Canadian Corps, the Canadian Railway Battalions and Canadian Forestry Units in France are received, and afford a comprehensive review of the activities in the Field.

- (b) **Histories.**—At irregular intervals there are forwarded to this office abridged narratives of deeds performed by Units and individuals in France. Such stories may range from a description of an action on a large scale to that of a paragraph detailing an act of bravery on the part of some otherwise unknown hero. Triplicate and quadruplicate war diaries and appendices thereto, maps, Operation Orders, photographs, etc., also come to hand from time to time. All this material is filed under the "Unit" system of the section, subdivided into periods of one month, and thus forms a useful addition to the cold facts contained in the monthly War Diaries. This miscellaneous material is proving of inestimable service to the historian and the literary staff.
- (c) **Records.**—Owing to the fact that War Diaries were not kept by Units in the early days of the War, it has been found necessary to complete records by applying direct to Officers who served with the Units. Through this channel much valuable information has been obtained which otherwise would have been lost.
- (d) Library.—The reference library, containing some 200 odd volumes and pamphlets, has proved a most useful acquisition. The aim of this library has been to include works by well-known authors and war correspondents relating to Canadian achievements. Added to this is the rather more interesting collection from an historical viewpoint, comprising a number of trench and camp magazines issued by the Canadian Forces; these have originated from 52 different sources, and those still being published are received regularly.
- (c) Honours and Awards.—A list is received monthly from the Officer in Charge of Records, of all Officers, N.C.Os. and men who have been decorated for gallantry. These are placed on the unit file in the case of the V.C., D.S.O., M.C., D.C.M. The Officer Commanding the particular Unit is corresponded with and his narrative obtained and filed.
- (f) **Collections.**—A very complete and valuable collection of regimental badges and distinguishing patches has been made. This collection has proved very useful to the War Memorials Fund Artists in completing minor details of portraits.
- (g) **Parcels.**—In compliance with routine order number 2,985, dated 26/11/17, this office has received from the Officer in Charge of Records 1,700 parcels for safe keeping. These

parcels have all been numbered and filed in order. Many boxes containing regimental documents have also been received, the total of these being 320. In addition, 673 parcels containing records of the A.A.G. Canadian Section, G.H.Q. 3rd Echelon, have been forwarded to this office for safe keeping. These have not been numbered other than the number received from the Base where they were put in order.

The contents of approximately 200 parcels have been carefully gone through, the papers classified, and a detailed inventory placed on unit files. A card system has been devised whereby these parcels may be dealt with quickly, and a complete index of contents seen at a glance.

The parcels have been found to contain very valuable material, such as maps and narratives of operations, and it is thought that many missing operation orders from the original war diaries will be recovered in the process of investigation.

- (h) Officers in France.—During the past few months the officers of the Canadian War Records Office in France have quickly increased their facilities for securing information desired, and have come to a full realisation of the value of war diaries and documents of historical interest. They have also co-operated with the artists of the Canadian War Memorials Fund in facilitating the progress of their work; many of these artists remained in France as long as two months, and all expressed their appreciation of the opportunities placed at their disposal by the Senior Records Office.
- (i) **Photographic.**—The Canadian official photographer has assiduously followed the movements of the Canadian Corps, and, as a result, his work is a valuable collection of battle, camp and billet photographs, each forming a permanent pictorial record of the activities of the Canadians in France. During the first nine months of 1918, over 1,000 new photographs were produced, bringing the total collection to over 4,000.

Prints of all these have been mounted in albums as well as circulated throughout Canada, United States and France.

The photographer in England has taken upwards of 500 photographs of officers and nursing sisters who have been decorated by H.M. The King. The photographer has also poid visits to men of the Canadian camps scattered throughout the United Kingdom, and photographed camp life, sports, physical training and interesting events in general.

In order to provide a safeguard against any possible loss to the original negative, a glass positive has been made from each negative so that a copy may readily be made.

A Canadian Section has been appointed at the Photographic Bureau of the Ministry of Information, and there is now on exhibition there practically a complete set of all Canadian photographs taken in France. This gives Canadians on leave in London an opportunity to see and purchase any pictures they may require.

(j) **Prisoners of War.**—Previous to the signing of the Armistice, prisoners of war who managed to escape from the internment camps in Germany and make their way to Great Britain were interviewed by the Records Office.

With the signing of the Armistice, an officer was sent to each of the two reception camps (Dover and Ripon), to work in co-operation with the Imperial Parliamentary Committee. The officer interviewed each repatriated prisoner, enquiring especially into any ill-treatment, unnecessary punishment, food, sanitary accommodation, working conditions, etc., in the several camps in which the prisoner had been confined. Particular attention was paid to securing the names, rank and regiment of officers, non-commissioned officers, men, or civilians, who were responsible for any ill-treatment reported. As a result, a very interesting and graphic amount of material has been received. This has been placed in charge of one of the interviewing officers, who is carefully going through each statement, making a summary which readily shows at a glance the many vicissitudes through which the soldier has passed.

GENERAL PUBLICITY.

(a) Literary.—The important work undertaken and produced by the literary staff of the office made it necessary to form a special sub-section. The vast amount of material available, and the work already produced or in course of production are sufficient to show that the department plays an important part in the compilation of historical data.

A book of the deeds of Canadian V.Cs. has been recently published. A series of the histories of all Canadian Battalions on Active Service has also been commenced.

Up-to-date, histories of the P.P.C.L.I., 10th, 13th, and 28th Battalions have been published. These average about 6,500 words and are sold at sixpence per copy.

"Canada's Triumph," by the Official Correspondent of the Ministry, Overseas Military Forces of Canada, covering the battles of the Canadian Corps from Amiens to Mons, has also been marketed. It is interesting to note that this book was for sale within three weeks of the completion of these operations.

Historical summaries of each Canadian Brigade, from its organisation to its recent operations, have been written.

A book of "Battle Pieces," etc., short, tense, true stories of personal interest taken from incidents of the War, has also been written. These stories are intended to bring home to the public the human side of the fighting men.

A volume covering the work of the Canadian Hospitals in the Near East is also being prepared. The five Canadian Hospitals which went out to Lemnos, Mudros, Egypt and Salonika in the early days are included. This section has dealt with the periodical publication of "Canada in Khaki," and "The Canadian War Pictorial." These two publications are illustrated with official photographs.

Volume IV. of "Canada in Flanders" is in the Press, and will prove a further graphic contribution to this special history of the Canadian troops. This volume deals with the activities at Vimy Ridge.

The following stories, narratives and articles have also been produced:—

"Special Reports of Vimy Ridge and Passchendaele."
The Story of the Canadian Cavalry Brigade at Cambrai."

"Narratives of Escaped Canadian Prisoners of War."
Les Poilus Canadiens (7,000 words, written for the Ministry of Information).

Short Articles on Canadian Corps Operations to date. Articles on Railway Troops and the Medical and Forestry Corps, for publicity purposes.

A chronological record of Canadian Corps Operations on the Somme.

Continuation of the chronological index of the Canadian Expeditionary Force.

Numerous articles for Headquarters, Overseas Military Forces of Canada, the "Maple Leaf," "Canada in Khaki," and the "Canadian War Pictorial."

Articles on various military subjects for the office files.

Much research work has been done in addition to that required for the purposes shown above.

The profits of all these works go to the Canadian War Memorials Fund.

(b) **Publicity.**—In order that the activities of the Canadian Forces in France might receive their full share of public attention, a vast amount of publicity material has been prepared and distributed to the Press of England, Canada and the United States.

This includes despatches from official correspondents in France, and special articles on various branches of the Overseas Military Forces of Canada, as well as many articles directly intended to place before the general public the work of the Canadian Forces.

(c) **Topical Films.**—The cinematograph operator with the Canadian Forces in France has filmed various activities. A series of cinematograph pictures, both of public interest and invaluable for record purposes, has been taken of various Canadian battles, a number of which have been forwarded to Canada, where they were well received.

A great number of views have been taken exclusively for use in the "Pictorial News"—a bi-weekly film publication for exportation throughout the world.

A special Canadian film was prepared for exhibition at the Canadian War Photograph Exhibition when on tour through the British Isles. This film is accompanied by a lecturer, who explains the various scenes and events.

A new feature in cinematography has been developed in a diagrammatic film accurately worked out of the Battle of Courcellette, which has been inserted in a film of the 22nd, 25th and 26th Battalions which took part in the battle, and the taking of Vimy Ridge.

There is now being made for public exhibition a film depicting Canadian activities in the Cambrai area.

(d) **Exhibitions.**—There have been four exhibitions of photographic work held during the year, which have attracted enormous crowds and most favourable Press comment throughout the United Kingdom. These exhibitions consisted of greatly enlarged coloured photographs shown in Royal Galleries.

The first exhibition, after the second year's tour in Great Britain, has been sold to the Ontario Government to be used by the Department of Education. The duplicate of this has been touring the United States. The original of the second exhibition has been on tour in England; the duplicate has been touring Canada, and is just now entering the United States. The third exhibition is on tour in England at the present time. The original of the fourth exhibition has just completed a most successful stay at the Grafton Galleries, and is now commencing a tour of the United Kingdom. The duplicate of this exhibition is on its way to Canada.

The paintings exhibited at the Royal Academy are being forwarded to New York for exhibition after closing a most successful six weeks' stay in London.

- (c) Canadian Daily Record.—The circulation of this soldiers' newspaper has now reached 25,000 per day, and many letters of appreciation have been received showing its popularity with the Canadian troops. The daily news cable service from Ottawa keeps the Canadians abroad well posted as to events and developments in Canada. The paper is doubled in size twice a week, two of the pages being devoted every Wednesday to the doings of the Canadian Forces in France and the training areas in England. This news consists of personal items, results of athletic events, and a record of any interesting episodes. This enlarges the scope of the paper and is a means of keeping the scattered forces in touch with each other, as well as forming a link with the home country.
- (f) Canadian War Memorials Fund.—The profits derived from the sale of Official Photographs, Exhibitions, Publications, etc., are devoted to the acquisition of records of a different nature, and are placed to the credit of the Canadian War Memorials Fund. Approximately sixty artists are employed to paint pictures which provide a record of Canada's share in the War, and there should be a permanent monument to the memory of those who have fallen. Fourteen of these artists are Canadian officers, the remainder being civilians. With the exception of the pay of officers, all expenses are borne by the Canadian War Memorials Fund.

Overseas Disposal Board.

No time was lost after the declaration of the Armistice in making arrangements for the disposal of all surplus Canadian clothing, equipment, arms, ammunition, horses, and the stores generally, of all Departments of the Overseas Military Forces of Canada which were no longer required for use Overseas or for return to Canada.

The Overseas Disposal Board was, in fact, called into being on the day after the signing of the Armistice, and was constituted as follows:—

The Quartermaster-General.

The Deputy Quartermaster-General.

The Assistant Deputy-Minister, and the

Canadian Financial Representative of the Overseas Military Forces of Canada.

The Board deals with all Departments, and the head of each Department is held responsible for notifying the Board as soon as any stores become surplus. The Director of Sales is then responsible for the disposal of all surplus articles, but only with the approval and under the sanction of the Board. As is customary in the case of Government stores, all sales are made by public auction, except in isolated cases where the articles to be disposed of can only be of service to some special industry. In these cases they are disposed of by public tender.

All accounts are handled in the usual way through the Accounts Branch and the Paymaster-General.

Up to March 1 the disposals had principally consisted of the horses of the Canadian Overseas Military Forces of Canada and Surplus Ordnance Stores and Equipment.

Horses and Mules.—At the date of the Armistice, Canada had approximately 24,000 horses and mules in France and 2,000 horses in England, and on November 12, the day on which the Disposal Board began its work, the Imperial Authorities notified the Canadian Authorities that it would be impossible for them to take over any Canadian horses as they had very large numbers of their own to dispose of. The Imperial Authorities, however, offered to pool the Canadian horses

with their own and sell them by auction, the Canadians to pay their share of the expenses involved and to receive the average price fetched by the horses on the total sales.

This offer, however, would have entailed the provision of considerable Canadian personnel to look after the horses until such time as they were disposed of, and very likely have involved the retention of Canadian soldiers Overseas after the demobilisation of the Canadian Overseas Military Forces as a whole. It would have also entailed the feeding and keep of large numbers of animals for which no employment could be found, a procedure which would probably have resulted in the total cost to the Canadian Government exceeding the returns from the sales.

It was equally impracticable, and would have proved even more expensive, to return the animals to Canada. It would not have been possible to find transports for many months, at the end of which time, in addition to the expense of keeping the horses and personnel required to look after them in the interval, it would have become necessary to pay a very high freight rate for the return of the animals to Canada. The expense resulting from such an arrangement would, inevitably, have been very great and could not have been justified on economic grounds.

It was, therefore, decided to enter into negotiations with some of the Allied Governments direct, and finally an agreement was arrived at with the Belgian Government whereby that Government took over all the Canadian horses and mules in France at the round price of £40 per head.

In lieu of cash it was agreed to accept Belgian Government securities for the amount involved, the sum due to be payable to the Canadian Government at any time within 10 years, the Belgian Government meantime to pay interest on all outstanding amounts at the rate of five per cent. per annum. Up to March 1, approximately half of the horses in question had been handed over to the Belgian Government and the remainder will be handed over as they cease to be required for military purposes.

Horses in England.—Approximately two-thirds of the Canadian horses in England have been disposed of by public auction, and up to March 1 fetched the average price of $\pounds 43$ each. This distinctly high average was only secured by the Disposal Board getting first on the market. The price of horses in England has already dropped considerably, and at the present time the British Government is selling horses at an average of $\pounds 30$ to $\pounds 40$.

Ordnance Stores: M.T. in France.—All Ordnance Equipment Stores and Mechanical Transport with the Canadian Troops in France, including the Canadian Corps, Lines of Communication Units and Hospitals, are the property of the Canadian Government.

These stores, of which there is an enormous quantity, are useful for military purposes only. Some idea of the extent of the transport may be gathered from the fact that there are upwards of 1,000 three-ton lorries in the Canadian Corps alone. The time that must have elapsed before it would have become feasible to move these stores and vehicles out of France, and the lack of storage accommodation in France, would have resulted in very great deterioration in value; in addition, apart from the fact that Canada had no need of such vast supplies of stores and equipment, there would have been no proper storage accommodation available had they been returned to the Dominion.

The Disposal Board, therefore, entered into negotiations with the Imperial Government, and these negotiations resulted in an agreement whereby the Imperial Government took over all Canadian stores and equipment in France, crediting the Canadian Government to the full for all equipment in a serviceable condition. This equipment may still be drawn on by the Canadian Government from the Imperial Authorities in such quantities and at such times as it may be required, and in the event of the Canadian Authorities not requiring the whole of the equipment financial arrangements will be made on the basis of the value of all serviceable equipment surplus to Canadian needs.

Stores in England.—All surplus stores in England are being disposed of either under agreement with the Imperial Authorities or by public auction. The British War Office has accepted a great quantity of stores from the Canadian Ordnance Depot at Ashford, Kent, these stores being converted to the use of the British Army. Such stores as have not been taken over by the War Office have been disposed of by public auction. The advisability of disposing of stores in this manner is amply apparent from the following reasons:—

(a) The abrupt ending of hostilities left the Canadian Government with considerable quantities of stores on its hands in Canada.

- (b) The major portion of the surplus stores in England had been used in the course of training in England, and in the majority of cases the condition of the material would not have warranted paying the high cost of freight across the Atlantic.
- (c) At the time of the Armistice there was a shortage of materials of all kinds in England, prices were high, and by taking advantage of an early market the Disposal Board was enabled to hold four distinctly successful and profitable sales.

It should be mentioned that in most cases, notwithstanding that they had seen service, the articles disposed of brought higher prices than they cost when new. The following is a typical example of such advantageous results:—

At a sale held after the closing of the Canadian Training School the stores disposed of consisted of lumber, wire, wirenetting, iron sheets, etc., all of which had been in use for over two and a half years. Yet, while the original cost of this material amounted to approximately £400, the proceeds of the sale amounted to £851.

The sale at the Ashford Depôt realised approximately £40,000; the sale at Liphook Depôt £9,000, and the sale at Seaford £3,300.

It is proposed to carry on these sales from time to time as stores become surplus, not only in order to reduce the number of men employed in the Canadian Ordnance Services as rapidly as possible, but because it is not desired to retain one man more than is necessary in England after the Canadian Troops as a whole have returned to Canada.

Interned Prisoners of War.

Report on Conditions existing in Holland.—During the year 1918 the subject of the conditions of our soldiers interned in Holland received the careful attention of the Overseas Administration. As a result of this it was decided to send a Canadian Representative to the Hague to investigate the conditions personally, and after negotiations with the Imperial Government, lasting several months, Major (now Lt.-Col.) Hume Blake was sent over in September.

From his report made after a thorough investigation, during which every facility was accorded to him by the British and Dutch authorities, the following information is taken:—

Those interned in Holland of all nationalities, numbered in all over 40,000. Of that number about 500 officers and 4,500 other ranks were British Prisoners of War, and these were practically all located in the Internment Camp at the Hague and its suburb Scheveningen.

Except a few officers who had been permitted to live elsewhere, all the Canadians, including about 53 officers and 314 other ranks, were quartered there.

Quarters and Billets.—The interned officers were for the most part housed in several large hotels near the sea front, which were taken over for the purpose by the Dutch Government. From all accounts these quarters were reasonably comfortable, and the food supplied was fair in quality, though much limited in quantity by the strict rationing that was in force. The other ranks were billeted in 11 different groups, widely scattered about the Hague and Scheveningen. The Canadians were in Group 6, known as the Colonial Group, and on inspection their billets were found to be fairly satisfactory.

British Red Cross Society and British Y.M.C.A.—Both the British Red Cross Society and the British Y.M.C.A. built up large and comprehensive organizations in Holland, and both appeared to be under able, efficient and generous control.

The British Red Cross Society, among its other activities, aimed at providing employment, instruction and education for the interned. Workshops, schools and classes of instruction in many subjects, both for officers and other ranks, had been organized, and were being satisfactorily attended.

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Of the three hospitals at the Hague for British Prisoners of War, the one for officers was entirely supported and administered by the British Red Cross Society. For this purpose, the Baroness de Brienen had handed over her residence "Clingendaal," and undertaken the duties of commandant.

The two hospitals for other ranks were under Dutch Administration and Medical Service, but the British Red Cross Society assisted with supplies of extra comforts, and a fund for this purpose had recently been provided by the Canadian Red Cross Society.

On inspection of these hospitals, the impression gathered was one of comfort, good order and competent direction, and the few Canadian patients spoke highly of the care and good treatment received.

The British Y.M.C.A. had organized numerous well-equipped canteens and other centres for the comfort and recreation of prisoners, but, as the latter were located in various widely-distributed groups, it had been difficult to arrange these centres so as to provide for the requirements of all.

Recreation.—One very good move which our Canadian officers made soon after their transfer to Holland was the formation of a Canadian Officers' Club. Modest quarters were found for the Club, consisting of one floor of a small building in Scheveningen, situated near the sea front, and it proved a great boon. It was run as economically as possible, and enabled its members to meet for social purposes, and to obtain light refreshment, much less expensively than at the Dutch cafés and restaurants. For the winter months it had been arranged to move the club to smaller, but more convenient, quarters in the British-America Club in the Hague.

Another very successful Canadian organization was the Canadian Sports' Club. The British Y.M.C.A. Sports' Grounds being three miles from the Colonial group, and no provision having been made there for distinctively Canadian games, such as baseball and lacrosse, it was decided to form a separate sports' club, and suitable grounds, of about six acres, were found within 10 minutes' walk of the Canadian billets. A baseball league was formed with the American Legation and some Amsterdam clubs, and through the summer much good baseball was played, as well as some soccer and indoor baseball. Many winning Canadian entries were made at the Garrison Sports and Caledonian Games, and on July 1, a Dominion Day Sports Meeting was held, which was generally considered to be the

most successful sporting event of the summer. The best sports' ground in the Hague was secured, and no admission charged, all expenses being defrayed by the Canadian officers. Six or seven thousand people were present and altogether it was a great day for Canada.

Food.—The Dutch and Imperial Military Authorities had many difficulties to contend with, the most material being the insufficiency of food. The shortage of food in Holland was very great, and the civil population strictly rationed. Food for all British interned other ranks were supplied by a Dutch Company, under a contract with the British Government, which provided that the soldiers' rations should be as sufficient as those allowed to the civil population. The company, however, did not fulfil this obligation, and the soldiers' food was not only altogether insufficient, but often so dirty and badly-prepared as to be almost uneatable. These conditions were much improved by the Imperial Government supplementing the rations provided under the contract, by sending supplies from England of bullybeef and meat and vegetable ration, and of ration biscuits. With these supplies the food was less insufficient, and there was also a considerable improvement in the way it was prepared.

The nearest Y.M.C.A. canteen was about a half-hour's walk from the billets of the Colonial group, and, owing to the distance and the crowding and inconvenience at the canteens, it was necessary to use a local café.

To better these conditions, the Canadian Y.M.C.A. intended to erect and equip a hut, with canteen and other equipment, conveniently near to the Canadian billets. This hut was to be large enough to serve not only the Colonial group, but an Imperial group located in the same area.

It was the intention to try and provide at this hut a fairly substantial evening meal at a moderate charge, probably half a gulden (about one shilling) a head.

General Conditions of Life.—Speaking generally, the conditions of life for all ranks interned in Holland were found to be better than was expected. It may be confidently stated that, with very few exceptions, the Canadians there were well and in good condition, physically, mentally and morally. They had come through the ordeal of the German prison camps remarkably well and with great credit to themselves. They

were made welcome and treated kindly by the Dutch Government and the Dutch people. Their conduct and discipline were good, and they stood high in reputation and credit. Of course, their life in Holland had its drawbacks. The cost of living was excessive, food and all commodities, services and accommodation being at least twice as expensive as in London. Moreover, notwithstanding the efforts of the British Red Cross Society, it was necessarily difficult and, in fact, impossible, to arrange suitable employment or instruction for all. A great many were employed only on group or garrison duty, and in these, as indeed in most cases, work of any kind only occupied a short part of each day, and the life was one of comparative idleness and considerable tedium.

Recommendations.—As a result of the investigation, several recommendations were made, particularly with reference to subsistence allowances, which were given effect to, except insofar as they were rendered unnecessary by the signing of the Armistice.

Statistics.—The total number of Canadians captured as Prisoners of War on the Western Front was 236 officers and 3,511 other ranks. Of these 28 officers and 273 other ranks died in captivity, 1 officer and 99 other ranks escaped, while 127 officers and 311 other ranks were repatriated prior to the Armistice. The balance have since been repatriated, with the exception of a few who remained on duty after the Armistice. In October, 1918, there were 55 officers and 316 other ranks interned in Holland, who have since been repatriated.

Repatriation.—Subsequent to the signing of the Armistice, the work of repatriation proceeded as quickly as possible. The repatriated Prisoners of War were brought to camps at Ripon and Dover, where they were outfitted, medically examined and paid, and given leave up to two months, as they desired. On the expiration of their leave, they returned to their regimental depôts and were then given priority of return to Canada.

The Inter-Allied Permanent Committee for Disabled Soldiers.

France and Belgium.—Belgium and France were first in the field in the development of institutional treatment for the re-education of their disabled soldiers; Belgium because, deprived of most of her territory, she had nowhere to discharge her disabled soldiers at the conclusion of their stay in hospital; France because, instead of discharging them from the army at the end of six months' stay in hospital, it was her custom to retain them in the primary hospitals until nothing more could be done for them.

As a result of the severe fighting and heavy casualties the number of cripples accumulating in the French hospitals became so great that it could not be overlooked. It was in November, 1914, that M. Heriot, Mayor of Lyons, obtained the approval of the Municipal Council for his scheme of the establishment of a school for the re-education of mutilated soldiers, and in December that school was opened. Other districts in France rapidly followed suit.

The Belgian scheme was of necessity on a larger and more elaborate scale, but in July, 1915, there was opened the "Institut Militaire, Belge des Mutiles, Invalides et Orphelins," at Port Villez on the Seine, half-way between Paris and Rouen. Here beside the necessary dormitories, administration and recreation rooms, there were no fewer than 30 separate workshops, in which an extraordinary diversity of technical training was pursued, clerical and commercial, agricultural, and training for the various trades.

Canada.—A combination of the influences at work in the armies of Belgium and France led Canada to take a pioneer position as regards the invalid soldiers of Great Britain and her Dominions. If Canada suffered from no loss of territory, her troops, like those of Belgium, were not on home soil. Invalid soldiers could not be discharged from hospital in France or in the United Kingdom until they could be returned to active duty, or were fit to stand the voyage back to Canada. Very soon the C.A.M.C. had to develop a series of Convalescent Hospitals, to which all Canadian patients had to be transferred from active treatment Hospitals, whether Canadian or Imperial. These

Convalescent Hospitals formed, as it were, the narrow tube of the funnel through which all Canadian patients had to pass. Thus it was that, months before any active movement for the reeducation of the maimed soldier took definite shape for the Imperial troops, the Granville Canadian Special Hospital (opened in November, 1915) was in working order at Ramsgate, with a well-developed system of functional re-education for the physical training of weak and partially paralysed muscles. This Hospital was also fitted with a number of workshops in which return to health and muscular strength was brought about by occupational pursuits—woodwork, ironwork, printing, house painting, bookmaking, leather work, cigarette making, and so on. The good effects gained were very striking.

Re-education.—In Canada itself the establishment of a Military Hospitals' Commission, charged with the care of the returned invalid soldier led inevitably to a careful study of the problems of re-education of the same, that he might take his place in civil life as a useful citizen.

The Board of Pension Commissioners also was immediately interested, and yet other bodies working under the Government, such as the Department of Soldiers Aid Commissioners and that of Soldiers Civil Re-establishment and the Land Settlement Commission. Considerations of national economy, as well as those of national gratitude, make this after treatment and training of disabled soldiers a matter of the widest interest.

Thus it came about that, in the second year of the War, from many different points of view, the future of the invalid soldier aroused widespread attention; and each one of the Allied nations was enquiring into the methods in vogue in other countries, in order that it might accomplish that which was most practical and most fruitful for the benefit of its invalid soldiers. On the part of the Dominion Government, several officers and experts were instructed to visit institutes in the Allied countries, and to report upon the methods there in vogue for the training and re-education of the disabled

Conference in Paris.—In December, 1916, at the initiation of the Belgian, and with the concurrence of the French Government, invitations were sent to the Allies to appoint delegates to attend an inter-Allied Conference on professional re-education and matters relating to war invalids to be held in the spring of 1917. This first Conference was held in Paris in May, 1917, under the Presidency of Baron de Brocqueville, the Belgian War Minister. At this Colonel F. G. Finley, C.B., C.A.M.C., repre-

sented the Dominion. The Conference resolved itself into half-a-dozen sections which undertook a detailed study of the care of the disabled in all its aspects. At the concluding meeting more than a hundred resolutions were passed dealing with medical gymnastics, functional restoration by work, mechanical orthopædics, artificial limbs, etc., pensions and gratuities, technical re-education, employment of the disabled, agricultural re-education, and the blind, deaf, and nervous and mental cases. The final resolutions determined upon the publication of a quarterly review upon all subjects relating to functional and technical re-education, and the appointment of a permanent inter-Allied Committee with central offices, a library and an information bureau in Paris.

Permanent Committee.—This Permanent Committee, of some 100 members, held several meetings during 1917 and 1918, and that Canada might be adequately represented a second Canadian member was nominated by the Government, in the person of Colonel Murray MacLaren, C.M.G. In the late autumn it accepted the invitation of the British Government to hold a second Conference in London in the spring of 1918, and immediately took steps to make this a success.

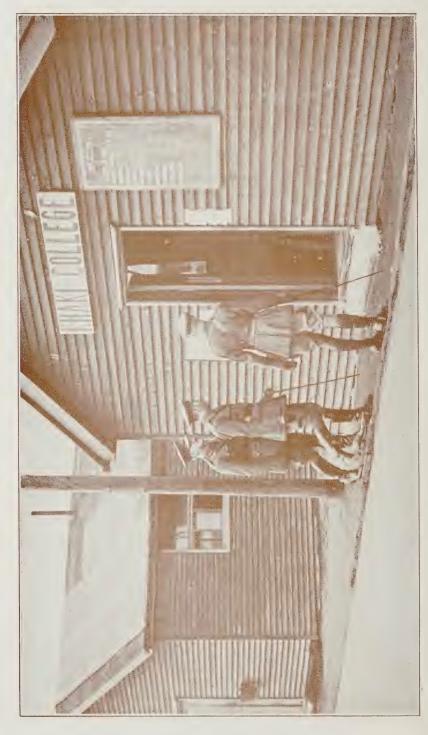
This Conference, held in Westminster in May, 1918, was very largely attended and a great success. Senator J. McClennan and several other delegates attended from Canada.

A striking feature was the museum, with its demonstrations of the disabled at work, and of the various objects made by disabled soldiers in the course of their training. The Canadian exhibit, contributed from the Hospitals and workshops in both Canada and England, was so attractive that, at the request of the Imperial Minister of Pensions, it was sent on tour through the large cities of the British Isles.

In consequence of Colonel Finley's return to Canada, Colonel J. G. Adami, C.A.M.C., has been appointed to replace him as Canadian representative on the Permanent Committee.







The King was much interested in Canada's Khaki University movement. Here His Majesty is inspecting the Khaki College at Witley Camp.

The Khaki University of Canada.

SUCCESS OF THE EFFORT MADE IN WAR TO EDUCATE MEN FOR PEACE.

The Idea.—The idea of conducting educational work among the men of the Overseas Military Forces of Canada—an idea which culminated in the Khaki University of Canada as a Branch of the General Staff—originated in the minds of certain officers of the Canadian Y.M.C.A., as a result of the many requests made to them from time to time both by officers and men for books and reading material of the kind required by students. This opened up a situation which was accentuated by constantly recurring enquiries on the part of the men as to what life they should adopt on their return to Canada.

It was felt that it was necessary to act, and the first move was made in January, 1917, when the Executive Committee of the Y.M.C.A., in France, passed a resolution which embodied a request that a representative of education in Canada should be asked to visit England and France to look into the whole question of providing some educational scheme for the troops.

As a result an invitation was sent to President H. M. Torry, President of the University of Alberta, to visit the Overseas Forces in order to make a report on the subject. President Torry, who was later appointed, and is now, Director of Educational Services, Overseas Military Forces of Canada, with the rank of Hon. Colonel. The invitation was accepted, and the mission undertaken during the summer of 1917, when the various areas in England and France were visited and careful observations made, both in respect to the requirements of the men and such opportunities as army life afforded for study. In August a Conference was held in France, at which were present the representatives of the Corps Commander and the four Divisions in the Field. The general scheme, which was then submitted, was afterwards accepted as the basis for future plans.

In addition to this, the matter was discussed at public gatherings of considerable numbers of men in Y.M.C.A. huts in France, and everywhere the scheme received their warm approval. In England the matter was placed before the

General Staff and also before groups of officers and men in the Training Areas, where it received similar commendation.

The Report covering the question which was published in September contained a number of recommendations, which were based upon conclusions, drawn from observation, of which the following are of interest:—

- 1. "There is no doubt in the minds of the Military Authorities that such educational work, if properly planned, would be of great benefit to the soldiers from the point of view alone of Military efficiency and general morale, and that, further, a great and useful service might be done in preparing the men for the time when they would have to resume the normal duties of life."
- 2. "The excitement associated with the initial stages of Army life has passed away, social and civic instincts are again asserting themselves, and there is a strong desire on the part of the men, particularly among those who previously followed intellectual occupations, to undertake any work which would bring them again into contact with the problems of civilian life. A considerable proportion of the men are not only willing to take advantage of any opportunity for intellectual improvement which could be offered, but are keenly anxious to do so."

Aims of the Promoters.—Knowing the minds of the men so well, it was the object of those who drafted the scheme, to give the men who had left Canada, while still at school or college, an opportunity to make up some of their lost time by enabling them to employ their spare hours in such a way that they might renew contact with the life they had previously followed or planned for themselves, and in addition, to make use of the time offered by the Demobilization period in direct preparation for their civilian work in life. Had the War only lasted a year the break would not have been a serious one; but the lapse of two, three, and, perhaps, four years, meant that those who had originally mapped out intellectual careers for themselves were now completely dissociated from their former conditions and ideals. It was to save these men for Canada, and especially to save them for the teaching and intellectual professions, that were perhaps the greatest object and the most urgent motive of the entire scheme. Just as much consideration however was given to the needs of those whose path in life would lead them to commerce, to trade, or to industry. It was therefore the second great object of the scheme to prepare for their life's work, by means of practical education, men who were still young enough to benefit by class work and lectures.

It was indeed believed that work carried on in war time would serve to create an interest among the men which during the Demobilization period could be intensified and guided along the lines which would make their re-adjustment to civil life in Canada a simpler and easier matter to control. It was further hoped that the whole scheme would ultimately link up with the various plans, either maturing or in operation, for settlement at home, so that a considerable percentage of men who would otherwise have no fixed and satisfactory occupation would by this means be enabled to choose and secure a definite calling in life. In this direction the promoters of the scheme had in mind such avocations as Agriculture and businesses of a practical kind.

With these aims in view the Report included recommendations which provided for a preliminary programme to meet both the immediate needs of the men, and a further programme which provided for developments during the period of Demobilization.

Original Scheme.—The initial and immediate scheme outlined in the Report provided for suitable lectures, study groups, and the establishment of useful libraries. The plan for the Demobilization period provided a complete scheme of education from elementary school courses to attendance at British Universities.

Steps were immediately taken to interest the Canadian Universities and Government Authorities in the matter, and finally the Universities of Canada agreed to help in the following ways:—

- 1. By co-operating in the formation of an Advisory Board representative of the Universities, the Board to serve as a Union Committee of the Universities, supporting what it was decided should be known as the Khaki University Movement.
- 2. By providing additional teaching power as required from time to time, more especially during the period of Demobilization.

3. By accepting certificates of educational work done by the men while with the Overseas Military Forces of Canada, in lieu of University work where it was of the same grade.

On the other part, the National Committee of the Y.M.C.A. of Canada agreed—

- 1. To transfer the control of the educational movement to the Union Committee of the Universities.
- 2. To finance the movement to the utmost of their power.

The Advisory Board agreed on was therefore called into being, and the whole matter laid before the Government of Canada in October, 1917, when the Prime Minister and the Members of his Cabinet accorded the scheme their full support. The approval of the Canadian public was amply illustrated by the fact that when, a little later, the Y.M.C.A. asked for half a million dollars to finance the work, that very considerable amount was immediately over-subscribed.

Beginning Operations.—While negotiations were proceeding in Canada the General Staff of the Overseas Military Forces of Canada appointed a Committee which, in addition to a member of the General Staff, consisted of a representative of the Y.M.C.A. and a representative of the Chaplain Services; and this Committee at once began the work of organising in England, pending the conclusion of the negotiations in Canada.

At the same time an organisation was founded under the auspices of the Third Division in France along similar lines. This organisation was later extended to the other divisions, and was known as the University of Vimy Ridge.

The work was begun in a limited way, both in England and in France during the autumn of 1917, and continued in the early part of 1918. With the beginning of the Spring Offensive in 1918, however, the work in France had to be closed down, and it was not possible to resume it until after the signing of the Armistice in November of that year.

In England, fortunately, there was no necessity to make a break in the work. Indeed, the demand for instruction on the part of the men made it practically impossible to discontinue it.

Khaki Colleges.—In England the organisation at first took the form of groups for study in the different areas, each local group being established as a Khaki College. Fourteen

such groups were called into existence during 1918, the colleges being established at the following centres:—

Basingstoke, Epsom,
Bexhill, Etchinghill,
Bearwood Park, Seaford,
Bordon, Shorncliffe,
Bramshott, Sunningdale,
Buxton, Witley,
Cooden, London.

Later, Battalion Schools, for elementary educational work were developed in each Battalion, in each area, in order to leave the College group free for more advanced work.

A Correspondence Department was also organised for men both in England and in France, for the benefit of those in Hospitals, Forestry Camps, and other places where local organisations were not practicable.

In France the scheme was operated by means of a series of Battalion Schools, the system being extended throughout the Canadian troops in France as a part of the Regular Military Organisation.

In both cases, however, throughout this time the work centred mainly in the Library. The Library and Reading Room, associated with lectures, were the principal features of the scheme.

University Established.—During the summer of 1918, negotiations were opened between the Representative of the Khaki University and the Overseas Ministry, with a view to putting the work on a basis which would meet the needs of the eventual period of demobilization. These negotiations concluded with a recommendation to the Canadian Government that an educational establishment should be set up in the Overseas Military Forces of Canada as a Branch of the General Staff under the control of a Director. This was absolutely essential in order that the machinery of the Army might be utilised in a regular and proper manner.

As a result of this recommendation, an Order in Council, passed on September, 19, 1918, gave authority for this Establishment, the official designation of which was the Khaki University of Canada. This Establishment was made comprehensive of all the existing educational organisations in the Overseas Military Forces of Canada, and the preamble of the Order in Council set forth that the representatives of the Khaki

University of Canada might assume responsibility for certain additional expenditure. Authority was also given for the Khaki University to draw on the Overseas Military Forces of Canada for whatever teachers might be required and were available.

Changes After Armistice.—The machinery had scarcely been created when the signing of the Armistice resulted in wholly unexpected demands being made upon the new organisation, and to understand how the problem was dealt with it is necessary to view the position as it had developed at the date of November 11.

The Battalion Schools were engaged in teaching subjects which would fall below the ordinary high school grade. The subjects taught were of the usual elementary kind, including elementary agriculture and commercial subjects, for the teaching of which special books had been prepared and printed under the auspices of the Khaki University.

The change in military conditions brought about by the cessation of hostilities naturally involved a modification in the position of the areas attendant on the movement of troops. While, however, it was possible to continue the Battalion Schools—as the schools move with the Units—it was considered advisable to rearrange and further develop the work of the Area Colleges. Courses in the higher branches of Agriculture, Applied Science, Commerce, etc., were continued, but Matriculation work and First and Second Year work in Arts, Science, Theology, etc., were transferred to a Central College at Ripon. To this College have been drafted about 850 of the more advanced students, including those both in England and in France. Further arrangements have been made whereby nearly 300 students, undergraduates above the grade of second year or graduate students, have been distributed among the various Universities in Great Britain, including Oxford, Cambridge, London, Manchester, Liverpool, Glasgow, Aberdeen and Edinburgh. Members of the Overseas Military Forces of Canada, while at these Universities, retain the pay and allowance of their rank, together with a subsistence allowance, and will continue their studies up to June, 1919. It is not proposed that they shall take degrees at these British Universities, but that certificates shall be issued by the British Universities to the Canadian Universities indicating the nature of the work done, in order that those who wish to take degrees may have their cases considered on their return to Canada.

Figures in France.—In France, of course, since Demobilization began, the work has been more complicated. None the less, most excellent results have been achieved. Exact figures as to the registration of students in the First Division are unfortunately not available, but a rough computation places the number at 2,000. The following figures, however, give the registrations in the 2nd, 3rd and 4th Canadian Divisions for the month of December, and afford a very fair idea of the nature and scope of the work which has been persevered in in the face of very considerable difficulty:—

(1) Fir					
Estimated number of Registrations				• • •	2,000
(2) Sec.	OND	Divisi	ON.		Security designation of
Agriculture					309
Commercial Subjects					437
Elem. Prac. Science		• •			571
Trades					85
Elementary Instruction	n	• •			616
	Tota	al	• •	• •	2,018
(3) Тн	IRD	Divisi	ON.		
Agriculture					285
Commercial Subjects					965
Elem. Prac. Science					115
Trades					124
Elem. Instruction					708
	Tot	al			2,197
(4) For	JRTH	Divis	ION.		
Agriculture					576
Commercial Subjects					824
Elem. Prac. Science					
Trades					78
Elementary Instruction	on				659
	Tot	al			2,137
Gran	D To	OTAL	• •		8,352

In addition to the work done in the Divisions, effective organizations were put into the following Hospitals and Casualty Clearing Stations in France:—

No. 1.	Canadian	General	Hospital.	
,, 2.	"	,,	,,	
,, 3.	37	,,	,,	
,, 7.	,,	,,	,,	
,, 2.	Canadian	Staty. E	Iospital	
,, 3.	,,	, ;	,,	
,, 7.	,,	,,	,,	
,, 8.	,,	,,	,,	
,, 9.	,,	,,	,,	
,, 10.	,,	,,	,,	
,, 1.	Canadian	Cas. Clea	aring Static	on
,, 2.	,,	,,	"	
,, 3.	,,	,,	"	
., 4.				

Good progress was also made among the Canadian Corps and Railway Troops. It was exceedingly difficult to carry on the work in the Forestry Areas except by correspondence, but over 800 men enrolled in the Correspondence Department, and about an equal number registered for regular courses.

Figures for England.—The figures giving the registrations in England for the month ending December 31, 1918, are as follows:—

Total number of individual students in classes and through the Corre			
Department			10,176
There were 2,499 new registrations	during	the	
month and 1,766 withdrawals,			
class registration at the end of			
of			8,420
The total registrations for the	month		0,20
Great Britain in the various sub			
Agriculture			2,296
Commerce			1,820
Engineering and Practical Science			3,365
Matriculation			1,239
University Courses			271
Elementary Courses		• •	
		• •	2,566
Miscellaneous	• •		198
C 170 1			
Grand Total	• •		11,755

These were registered at the eleven organised Colleges in England and in the Correspondence Department.

Grand Totals.—The grand total of the Registration of Students from July, 1918 to Dec. 31, 1918 is:—34,768.

The above figures do not include those of the Extension Lectures for the same period, which are as follows:—

Total Extension Lectures from July, 1918 to December 31, 1918 ... 637 Total Attendance for period ... 231,000

Expenditure.—The following are the two principal items of expenditure in relation to the work of the movement up to December, 1918:—

- 1. Total expenditure from private funds at disposal of Khaki University up to Dec. 31, 1918 £39,089
- 2. Of the above total there has been spent approximately on books ... £15,000

Books and Libraries.—Up to December 31, 1918, over 100,000 books and 750,000 of educational booklets and pamphlets have been distributed and were in circulation in the Overseas Military Forces of Canada.

So great was the difficulty experienced in securing suitable books in England that it was necessary to arrange special facilities for bringing them from Canada. It was also necessary in respect of instruction in Agriculture and commercial subjects to print over 200,000 booklets illustrative of Canadian conditions.

The foregoing figures amply show that the Khaki University has met and is still meeting a deeply felt want among the men of the Overseas Military Forces of Canada. The period of Demobilisation has now become shorter than was anticipated, and as a consequence it has been a little more arduous to carry out the instructional programme which was originally designed. None the less, if the plan now in operation is compared with the suggestion made in the first Report, it will be seen that nearly every idea embodied in those recommendations is being carried out.

Information Bureau.—In addition, too, there has been created a new Department of great importance. This is the Information Bureau, to which every man of the Overseas Military Forces of Canada can apply for any information which will assist him to re-establish himself in civil life after Demobilisation. This Bureau is in fact the link between the Khaki University Overseas and all the various organisations in Canada, official and otherwise, which have been established to provide for the men's welfare on their return, and so close is the co-operation between the Authorities of the Khaki University and these various bodies, that the success of the movement as a whole is unquestionably assured. It is further interesting to record that the Information Bureau has already been so inundated with inquiries, and has already accomplished so much good work, that steps have been taken to establish branches of the Bureau in the different areas in order to handle the volume of business with the utmost expedition.

Distribution of Information Relating to Civil Re-establishment.

With the cessation of hostilities the necessity for making adequate provision for the re-establishment of the soldier in civil life became of paramount importance. In order to do this effectively a large amount of information had to be obtained from, and brought to the notice of the soldier himself, and in this respect the Overseas Department has been able to render valuable assistance to the other Departments of the Government immediately concerned with this matter. Wherever possible, the machinery of the Military organisation has been put at their disposal to assist them in carrying out their task.

On the arrival of the Overseas representative of the Department of Soldiers' Civil Re-establishment arrangements were made by the Minister to carry out the distribution and completion of the *questionnaires* required by that Department. The necessary orders were issued for this purpose, and when the forms were completed they were handed back by the Military Authorities to the Department of Soldiers' Civil Re-establishment.

Arrangements were also made for the distribution of all literature which it was desired to bring to the attention of the troops. A pamphlet entitled "Canada and her Soldiers" was published, containing a compilation of the information relative to the various organisations interested.

For the better co-ordination of the work being done on both sides of the Atlantic by organisations interested in repatriation, and particularly in order that authoritative information on all subjects connected with the return to civil life should be available to the troops, a meeting was held at the Ministry on March 3, 1919. It was attended by representatives of the Khaki University, Canadian Y.M.C.A., the Department of Emigration, the Department of Soldiers' Civil Re-establishment, the Land Settlement Board, the Pensions Board, the Canadian Red Cross Society, and the Repatriation Committee.

The meeting agreed that a series of Information Bureaux were necessary, and decided to establish them throughout Britain and France. As the Khaki University already had an organisation for the purpose of distributing information to the troops it was

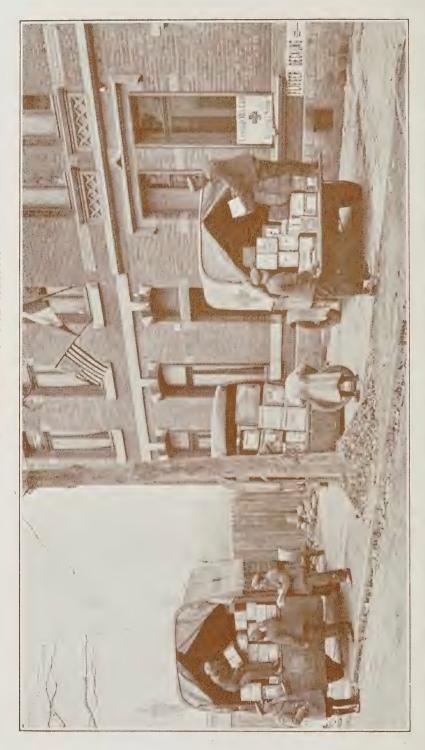
II 2

decided to use this organisation and to extend it according to requirements. The Minister was to be notified of additional personnel required for this purpose.

A Co-ordinating and Advisory Committee was appointed, which, it was agreed, should meet once a week, or more often if required, to direct the work of the Central Bureau and to maintain close touch between the various Departments and Organisations. It was decided that Bureaux should be opened at once in the following camps in England: Rhyl, Ripon, Buxton, Witley, Seaford, and Bramshott.

With regard to France it was decided to establish a Bureau at Le Havre, as all troops passed through this Camp en route to England, and usually spent at least a week there prior to sailing. It was felt that very little could be done otherwise in France, as the troops were constantly on the move, and even when Divisions were stationary in the field they were scattered over a wide area. It was pointed out, however, that each Unit had an Educational Officer with it, and these officers together with all Canadian Y.M.C.A. representatives and Chaplains would be kept posted with the latest information, and would be able to pass it to the men.





The Canadian Red Cross fed thousands of refugees in the territory recovered by the Canadian Corps. Lorries being loaded with supplies at Valenciennes.

Canadian Red Cross Society.

RECORD OF WORK DONE FOR CANADA'S FIGHTING MEN OVERSEAS.

The Record of the Canadian Red Cross Society during four years and more of war is a tribute, not only to the activities of the staff but to the unselfishness, generosity, and perseverance of the Canadian people as a whole. Those who organised and directed the work in Canada, those who gave lavishly of time, of money, of supplies, and of labour, and those Canadians in England and in France who devoted themselves to the work of the Canadian Red Cross, all laboured with a single aim—that no need of the sick and wounded should go unheeded, or unsatisfied.

In the main, the object of the Canadian Red Cross Society, which acted as a voluntary auxiliary organisation to the Canadian Army Medical Corps, was to furnish the sick and wounded with comforts of all kinds over and above the necessary supplies issued by the Government to the Canadian Military Hospitals and other Units. Frequently, too, it was called on to co-operate with the Medical Service in times of emergency, when the organisation was required to hold itself in readiness to provide at a moment's notice any supplies which might be needed.

The organisation Overseas, which was under the direction of a Chief Commissioner, with an Assistant in England and one in France, was at first established on a very small scale. Limited funds and accommodation, and one warehouse with modest Headquarters in France, sufficed in November, 1914; and it was only necessary to supply the needs of one Canadian Hospital up to the first months of 1915. Thereafter, however, the demands made upon the Canadian Red Cross Society rapidly increased, and in 1916 the Canadian Red Cross War Committee was appointed to advise and co-operate with the Chief Commissioner.

Work for the French.—The work done for the French and for the other Allies was typical of Canada's broad and sympathetic attitude, and the French were in a position to

estimate Canadian sympathy as early as 1915, when money and hospital supplies were sent from the Dominions for the benefit of the sick and wounded soldiers of France.

It was in March of that year that a depôt was opened in Paris for the reception and distribution of Canadian Red Cross supplies to French Hospitals, and during the first six months of the Society's work in France upwards of 28,000 cases were distributed to French Hospitals alone. The total number of cases of supplies given for the benefit of French sick and wounded up to the end of 1918 was 72,782, the value of these gifts amounting to £851,549 8s.

In addition, the Canadian Red Cross subscribed upwards of half a million francs for various French War Charities, and further made a gift to the French Republic of the Hospital which was opened in July, 1918, at Joinville-le-Pont, Vincennes. This Hospital, which was completely equipped with medical appliances and staffed by Canadian surgeons and nurses cost £73,657. The Canadian Red Cross Society also provided in France an excellent service of motor lorries and motor ambulances for the benefit of French Hospitals.

Help for other Allies.—France, however, was by no means the only Ally to benefit. Money and supplies were bestowed on other Allied countries, the total of the grants of money made to the various Allies, including France, amounting to £104,601. In addition, 21,000 cases of supplies were distributed among the Belgian, Italian, Russian, Serbian, and Roumanian Red Cross Societies, and the Wounded Allies Relief Fund, up to the end of December, 1918.

Work for Canadian and Imperial Forces, etc.—The work done in France for the Canadian and Imperial Forces is the best evidence of how the splendid generosity and enthusiasm of the people of Canada kept pace with the glorious achievements of the Overseas Military Forces of Canada at the Front.

Only one Canadian Medical Unit was in France when the Canadian Red Cross Society began its work in January, 1915, and from that time the Canadian Red Cross Society never failed to support the Canadian Medical Services, no matter what the emergency, nor how exigent the demand. Hospitals, Dressing Stations, and Regimental Aid Posts knew that Red Cross supplies of every kind were not only waiting to be forwarded at the first call for help, but that they would often be offered before it was even realised that a need had arisen.

At Canadian Corps Headquarters, the Canadian Red Cross Society maintained an advance supply store, and from this the Society's own special transport carried the extra supplies and comforts needed at Field Ambulances and Regimental Aid Posts. The requirements of the Field Ambulance and the Aid Posts varied, but articles for which there was always a constant demand when a severe action was in progress, included dressings, special foods, instruments, socks, scissors, chocolate, pyjamas, and even comfort bags into which wounded men put their small personal effects.

Before entering the trenches the Battalion Medical Officers always received a parcel of comforts from the Society's advance store. Thus, at every Regimental Aid Post the Canadian soldier received tangible evidence that the people at home were giving and working that he might have comfort in his need. So it was until he reached the Hospital at the Base and until he left Hospital in England to return to his Reserve Unit, or to take his discharge in Canada—throughout his progress the Canadian soldier was benefiting, consciously or unconsciously, by the work of the Canadian Red Cross Society.

Every Article Required .- All officers commanding Medical Units under the Canadian Army Medical Corps were provided with special forms on which they could indent for whatever stores they required; and to facilitate the distribution, a Canadian Red Cross Society Store, in charge of a trained orderly, was attached to every Canadian Hospital in France. In most cases every article required could be supplied on the spot; in other cases they were sent for from the warehouse, As a precaution, all requests for supplies made by Units in the Forward Area had to be approved by the Senior Medical Officer of the Area unless the case was one of great urgency. In every instance a careful record was kept of each item issued, and a monthly return sent to England. Up to December 31, 1918, a total of 56,398 cases of supplies was sent to the Canadian Red Cross Society's Headquarters in France and thence distributed as required to the Canadian Troops.

The work of the Canadian Red Cross Society in France, however, was by no means confined to the distribution of supplies. Its activities, indeed, were of a most varied description, it operated a large Motor Ambulance Convoy, and built large recreation huts in connection with the Canadian General and Stationary Hospitals. These huts, which were in charge

of Canadian Members of the Voluntary Aid Detachments, were at times used as Hospital Wards. The Red Cross Society also built special wards for pulmonary cases in several of the Canadian Hospitals; it supplied Christmas gifts to all Canadian soldiers in every Hospital in France; it furnished musical instruments for Hospital Orchestras; provided special furniture and fittings when such were required, and opened a Canadian Rest House, staffed by Members of Canadian V.A.D's, for nursing sisters passing through Boulogne. From the time of the opening of this Rest House in April, 1918, until December 31, 1918, no fewer than 6,859 nursing sisters were grateful for the repose and shelter it afforded them.

In France the erection, equipment, and maintenance of buildings, including hospital accommodation for 610 beds, amounted to £88,233 12s.

Work in British Isles.—The work of the Canadian Red Cross Society in Great Britain was, for obvious reasons, of a different character to that which it carried on in France, but it was none the less important. The small office, the one small warehouse, packing department and bonded room, which were first established in London, did not long suffice to meet the rapidly increasing demands made on the organisation. The opening of new hospitals in France and in England and the organising in France of both Ambulances and Casualty Clearing Stations involved the handling of an immense quantity of supplies. Additional warehouse room had to be acquired in December, 1915, and by that time the central office in Cockspur Street included 16 rooms, while the workers numbered 84. To the activities of the central office had been added the work of the Information Bureau and the Prisoners of War Department.

At the close of the second year, 1916, the volume of work had again enormously increased. Once more it had been necessary to rent additional warehouses. From November, 1915, to October, 1916, 62,005 cases were dealt with in these warehouses alone. By this time, too, the Canadian Red Cross Society was assisting in the cases of from 16,000 to 19,000 sick and wounded per month, and there were nearly 40 Canadian Military and other Hospitals requiring assistance Overseas.

By the end of 1917 the work had made still further strides. Forty rooms were required as offices in Cockspur Street and four warehouses were needed to store the cases of supplies. There was a motor convoy in London of four lorries and twelve cars.

In April, 1918, the Headquarters of the Society were moved from Cockspur Street to Hotel York, Berners Street, and 21, Berners Street was acquired for the Prisoners of War Packing Department.

The closing months of 1918 were the most strenuous in the history of the Society Overseas, owing not only to the severe fighting in which the Canadians were so long engaged, but on account of the needs of the unfortunate people in regions previously occupied by the enemy. These needs were partly met by the Canadian Red Cross Society.

The following figures give the number of cases of supplies dealt with from November, 1914, to November, 1918:—

Cases of supplies from Canada		248,673
Cases of supplies purchased in England		46,768
Cases of supplies distributed to Hospitals	in	
England ··		113,813

Buildings Equipped and Opened.—From the time the Canadian Red Cross Society began its activities Overseas up to the cessation of hostilities the following Hospitals were opened by the Organisation in England:—

THE DUCHESS OF C SOCIETY HOS	Connaught, Canadian Red Cros pital, Taplow, Bucks	s 1,040 beds.
THE CANADIAN	RED CROSS SPECIAL HOSPITAL	,
Ruyton		. 275 beds.

THE KING'S CANADIAN RED CROSS CONVALESCENT HOSPITAL, Bushey Park 406 beds.

THE CANADIAN RED CROSS OFFICERS' HOSPITAL (in Hotel Petrograd, London) 170 beds.

In addition, the Society maintained at Ennismore Gardens, London, a Rest House for Canadian Nurses, who were received there as guests of the Society, and from January, 1918, to the end of December, 1918, 1,525 sisters (including 100 Voluntary Aid Detachments) were accommodated.

From December, 1917, the Society also maintained a Rest Home for Officers, at Moor Court, Sidmouth, and by the end of 1918 nearly 500 officers had enjoyed its hospitality. The Canadian Red Cross Society also gave valuable assistance to the authorities by erecting and equipping, or adapting, recreation rooms, games' rooms, special wards, nurses' quarters, workshops, machine shops, canteens and rest rooms in connection with Canadian Military Hospitals.

In October, 1915, a depôt was opened at Folkestone for the distribution of supplies to Hospitals in the Shorncliffe Area. At the Shorncliffe Military Hospital there was a Canadian Red Cross Rest Hut, administered in connection with the depôt, for the benefit of all patients going to Shorncliffe for examination by a Medical Board.

Information Bureau.—The Information Bureau was opened the day after the First Contingent landed in France, on February 11, 1915, and proved of inestimable value to Canadian soldiers and their relatives and friends. Its purpose was to collect and distribute information concerning the sick and wounded and the prisoners of war of the Canadian Divisions in Germany, to introduce officers and men to people in the British Isles anxious to offer hospitality, and to supply the relatives and friends of the sick and wounded with regular and authentic reports as to their condition. It may be said that no branch of the Canadian Red Cross Society's activities so closely touched the fighting men and their families as this Information Bureau, with its 200 workers and 1,300 hospital visitors.

One Department of this Bureau was divided into six sections, Hospital Visitors, General Records, Reports, Supplies, Enquiries for Sick and Wounded and Permanent Casualties. Casualty record cards were carefully filed and kept up to date by the reports of the visitors, which were used as the basis of the letters to the relatives. As many as 1,076 reports have been sent out in one day.

All enquiries for officers and men who were sick or wounded were carefully answered, and details were procured whenever possible. In cases of great urgency cables were sent to the enquirers.

The section dealing with officers and men killed in action or who had died on active service had a sad task indeed; but its workers had the comfort of knowing that they were often able to ease the minds of anxious people asking for news of the missing, or for details of the death and burial of those who had fallen. During 1918 the work of the Bureau included:

Enquiries answered by	letter	4.0	 	7,500
Letters forwarded			 	10,500

Parcels Department.—The Parcels Department did much to help to cheer men in Hospital. Up to the end of 1918, 456,166 parcels, containing Canadian Red Cross kits, with toilet articles, cigarettes, stationery, games, books, sweets, fruit, materials for work, and other things for which the men asked, had been sent to all Hospitals in which there were Canadians.

Some idea of the contents of the parcels is gleaned from the statement that in one year the Purchasing Department bought 12,630,000 cigarettes, eight tons of tobacco, 40,000 shaving brushes, five tons of fruit drops, and 10 tons of eating chocolate.

The Newspaper Department also cheered the homesick soldier in Hospital. About 79 sacks of newspapers arrived from Canada monthly, and these papers were sorted and distributed according to the demands of the men.

The Hospitality Department was fortunate in the co-operation of many kind hostesses in the British Isles anxious to entertain Canadian officers. Between February, 1916, and the end of December, 1918, 200 hostesses had entertained as their guests 2,830 Canadian officers while on leave from Hospital or from France.

Drives and entertainments were constantly arranged for the men, through the Information Bureau, which was able to supply cars and chauffeurs. In the last six months of 1918 alone 5,182 theatre tickets were issued, and 3,369 drives arranged.

Prisoners of War Department.—This Department was opened after the second Battle of Ypres, when it was known that wounded and gassed Canadians had been taken prisoners. The Department continued working until all Canadian prisoners of war had returned from Germany or had been accounted for after the Armistice was signed.

From the end of April, 1915, until the end of December, 1918, the Department recorded in its books the names of 387 Canadian officers and 4,113 other ranks, together with Canadian civilians and seamen and men of the Newfoundland Regiments, and a few soldiers from other Allied Forces.

The total number of parcels sent containing food, clothing, and tobacco was 530,054, and its total cost of parcels £258,630.

From this report of the work of the Canadian Red Cross Society, from the autumn of 1914 to the end of December, 1918, much is necessarily omitted.

It is impossible to give in detail the names of the many hundreds of devoted and faithful voluntary workers for the Society in England and in France, who sought no reward for their labours, but the joy of knowing that the Society achieved its aim—to be the unfailing friend of the sick and wounded.

Nor is it possible to tell adequately what the Overseas workers for the Society owe to the people of Canada, whose devoted and generous labours enabled them to accomplish the work entrusted to them.

Statistics, 1914–1918.—The following figures refer only to cash and supplies sent to the Overseas Headquarters, Canadian Red Cross Society, and is exclusive of supplies and grants sent direct from Canada, and of amounts raised in Canada for the British Red Cross Society:—

Cash received at Overseas Headquarters	£1,076,957
Cases of supplies received from Canada	248,673
Purchased locally	46,768
Value of cases	£2,520,303
Value of ambulances and cars donated	
and purchased	£98,460

Altogether it has been a great work, and one deeply appreciated by the men. On that point no one is more qualified to speak than Lieut.-General Sir Arthur W. Currie, and it is fitting that the Canadian Corps Commander's message to the Canadian Red Cross Society's meeting held in Toronto, should be given here. The following is the text of that message:—

I esteem it a great privilege to record the feeling of pride and thankfulness experienced by all Canadians Overseas in the wonderful work accomplished by the Canadian Red Cross Society since the outbreak of war. We are proud of the splendid generosity of Canada at home, proud of the enthusiasm and efficiency of the excellent organisation which collected and dispersed the comforts, and proud of the devotion to duty, the tireless energy, the constant supervision and the appreciation of what was wanted, of those who managed on this side of the water, and those who benefited in any way from the ministrations of the Red Cross are truly thankful: the wounded, the sick, the tired and weary.

Many lives have been saved, many break-downs averted. and much discomfort removed, much suffering lessened by the aid received from the Red Cross. At the Hospitals, the Convalescent Camps, the Rest Homes, the Dressing Stations, and on the battlefield itself, everywhere were seen the Red Cross wagons and their attendants succouring, relieving and helping in every possible way. This help was not reserved for Canadians only; British and French institutions did not apply in vain, and no nobler work was done by the Canadian Red Cross than when it helped to supply the needs and wants of the civil population in those French and Belgian areas from which the enemy was driven; old and feeble men and women, suffering mothers, emaciated children, from all of whom the foe had taken the necessaries of life, will on bended knee for ever thank God for sending the Canadian Red Cross, with its comfort, its succour, and its sympathy. Now that the War is over it may seem to some that there no longer remains the same urgent need for the mission on which noble and unselfish women and men have been for so long engaged; yet it would be a pity, and indeed a wrong, if any helpers in the Canadian Red Cross should cease their labours for the cause of suffering humanity, and so, while I am very imperfectly and inadequately expressing the appreciation of those who have been helped, may I at the same time vouchsafe the hope that the Canadian Red Cross Society will continue to direct the full energy of its organisation to the relief of the poor, the needy, and the distressed whithersoever dispersed.

(Signed) A. W. CURRIE.

SPECIAL EVENTS OVERSEAS, 1914-1918. 1914-1915.

The following tables give in brief the principal events connected with the activities of the Canadian Red Cross Society Overseas from 1914 to 1918:—

Opening of the the Duchess of Connaught Canadian Red Cross Society's Hospital at Taplow.

Opening of the Canadian Red Cross Society's Rest Home for Canadian Nurses at 13, Cheyne Place, London.

- Seventy-eight Nurses arrived from Canada to serve under St. John Ambulance Association.
- A "Canada" Car contributed to the Princess Christian Hospital Train.
- Fifty-six motor ambulances provided for Society's work.
- Canadian Red Cross supplies given to the following Hospitals in France:—Two Casualty Clearing Stations with 200 beds each; four Stationary Hospitals with 200 beds each; four General Hospitals with 1,040 beds each; six Field Ambulances with 50 beds each; and in England to the Duchess of Connaught Canadian Red Cross Hospital with 1,000 beds, besides comforts to Canadians in other Hospitals.
- Depôt established in Paris to distribute supplies to French Hospitals.
- Women assist the Canadian Red Cross Society's work at Boulogne in search for missing and wounded Canadian officers.
- Canadian Red Cross Society erected and equipped a ward in the St. John Ambulance Association Hospital in France.

1915-1916.

- The King's Canadian Red Cross Convalescent Hospital, opened at Bushey Park.
- The Canadian Red Cross Society's Nurses' Rest Home at Margate, opened April 1, 1916.
- The Imperial Order Daughters of the Empire Hospital for Officers, opened May 11.
- The Canadian Red Cross Special Hospital, Buxton, opened May 16.
- Assistance given to Canadian Army Medical Corps in England on behalf of 16,000 to 18,000 sick and wounded Canadians monthly.
- Aid given in the erection and equipping of huts and other buildings for five Canadian Hospitals in England and five in France.
- Recreation huts erected, equipped and maintained in the Canadian Hut Hospitals.

- Large issues made to French Red Cross Societies and 300 French Hospitals supplied direct with stores.
- Five thousand cases per month distributed from Paris stores.
- Convoy of five motor ambulances started in Paris in conjunction with the British Red Cross Society.
- The sum of 300,000 francs presented to French War Societies as a token of sympathy from Canada.
- Fifty-nine Canadian Red Cross Society ambulances working near Boulogne.
- Prisoners of War Department becomes Care Committee for Canadians, under Central Committee.

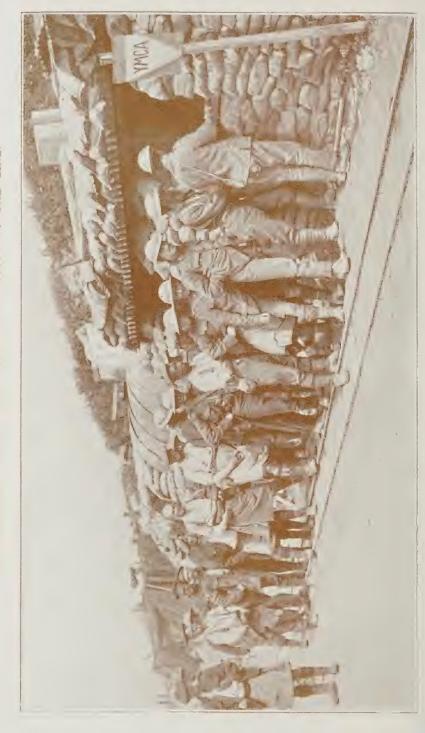
1916-1917.

- Assistance given in France to five General and three Stationary Hospitals, four Casualty Clearing Stations, 13 Field Ambulances, and 14 small Hospitals attached to Forestry, Tunnelling, and other Companies.
- 5,432 cases of supplies given to Belgian, Italian, French, Serbian, Russian, and Roumanian Red Cross.
- Comforts distributed to 20,000 sick and wounded Canadians monthly, throughout Great Britain, and 21 Canadian and 130 British Hospitals.
- The following Hospitals opened by the Canadian Red Cross Society were transferred to the Military Authorities on April 1, 1917:—Duchess of Connaught Canadian Red Cross Special Hospital, the King's Canadian Red Cross Society's Convalescent Hospital, the Canadian Red Cross Special Hospital, Buxton; the Princess Patricia Canadian Red Cross Society's Hospital at Ramsgate.
- Chest Wards erected in No. 1, No. 2, and No. 7 Canadian General Hospitals in France.
- Advanced Store opened in France, adjacent to the Headquarters of the Deputy-Director General of Medical Services in charge of officer attached to the Deputy Director-General of Medical Services.
- Canadian Red Cross Home for Officers, opened at Moor Court Sidmouth, December, 1917.

1918.

- Canadian Red Cross Society's Rest House for Nurses, opened at 66, Ennismore Gardens, London, S.W., January, 1918.
- Canadian Red Cross Society's Rest House for Nurses, opened at Boulogne, April 1, 1918.
- Canadian Red Cross Special Hospital, at Vincennes, near Paris, opened July 3 by Sir Robert Borden, as a gift from the Canadian Red Cross Society to the people of France.
- Opening of the Manor House, Bexhill, as an Officers' Casualty Company.
- Opening of the Canadian Red Cross Officers' Hospital, London.
- Opening of Canadian Red Cross Society Nursing Home, Seaford, for the wives of officers and other ranks.
- Work carried on in the closing months of the year for the people suffering privation in the areas evacuated by the enemy. Food and clothing were supplied by the Canadian Red Cross Society while the enemy was retreating from France and Belgium.





The Canadian Military V.M.C.A. did magnificent work These men are getting most welcome hot coffee in the battle zone.

Canadian Military Y.M.C.A.

SERVICE TO THE TROOPS FROM VALCARTIER TO THE RHINE, AND FROM ARCHANGEL TO PALESTINE.

The Beginning. The Canadian Y.M.C.A., known to the Canadian troops as the "Y," was among the natural growths of this war. Forty-three years previously it had instituted the first military work of any "Y." That was at a camp at Niagara, in 1871. Later it seized its opportunity in the Campaign against the Boers. But it was left for the Great War to develop an organisation that became an integral part of the fighting unit and the affinity of the fighting spirit.

At the first call to arms in Canada in August, 1914, it penetrated the life of Valcartier Camp. When the First Contingent sailed there were with it six "Y" Officers with the honorary rank of Captain. They stuck to their work in the Canadian camps in England, but when it came to following the troops to France there were difficulties. The British Military organisation did not provide for Y.M.C.A. Officers. The way of those first Canadian Y.M.C.A. Officers was hard.

Still, within a year they were able to justify their presence. The War Office recognised them, though at the same time it refused to include them in the War Establishments. By authority, however, each Canadian Division in the field was allotted six "Y" Officers. As no "other ranks" were authorised these had for the time being to be borrowed from the Units. For another year this system was continued, everyone—including the British Military authorities—acknowledging the service the "Y" rendered, and to all intents and purposes according it the privileges of Establishment.

In May, 1917, formal Establishment was at last authorised. The provision was for 114 officers and 265 other ranks in England and France. In a little more than a year from then the personnel of the "Y" was 140 officers and 745 other ranks. This growth has increased with the expansion of centres in England and France, every Unit of sufficient size being reached in some way, either by a complete programme of huts and entertainment or by the provision of reading and writing material, except in the few instances where Units are so constantly on the move, and so detached, as to prevent the adoption of any regular scheme of service.

(642)

In the Battle Zone. Of course, the main consideration was "Service to the Troops." Indeed, that phrase was the motto of the Canadian Military Y.M.C.A. The organisation in Canada fed the detachments Overseas by collecting funds, while the English end existed for the benefit of the soldiers in the British Isles, freshly arrived from Canada and in training for duty in France, or wounded and recovering in British hospitals.

Everything turned towards the fighting machine facing the Germans. Over there, in France, was the real struggle to keep the advantages offered by the organisation at the elbow of the soldier. Growing weekly with the increase of funds, the opportunities afforded, and the knowledge of the work required, the organisation might easily have become too unwieldy for the rapid moves which have swung the Canadian Corps from Ypres to the Rhine in the course of its career.

It was the solution of that problem, added to the lack of transport consequent on the requirements of immense armies, which taxed the ingenuity and resources of the "Y." It was a imple enough matter in general to provide for the needs of a Corps at rest. That was merely a question of huts, marquees, tents, and determination.

But when the Canadian Corps moved—as it did from Ypres to the Somme, from the Somme to Lens, from Lens to Passchendaele, from Passchendaele back to Arras, from Arras to Amiens, from Amiens to Arras again, and thereafter advanced, guns, horse and foot, miles a day at times—it tested the personnel, equipment, endurance, and ingenuity of the "Y" to the utmost. It was not merely the closing in one place and the opening in another. There were always immovable huts in the old place, and nothing but ruins in the new. The huts had to be left—for some other organisation to make use of for the incoming troops—but the provision left by the predecessors of the Canadians in the new area was naturally insufficient to the needs of the Canadian "Y."

An Enterprise on Wheels. Then again there was the necessity of carrying on an immense retail business under all the disadvantages of instability. In 1918 the "Y" Canteens in France—a great enterprise on wheels—did \$5,000,000 worth of business. Not only had stock to be moved and new housing found, but deliveries of fresh supplies were rendered uncertain and irregular. During 1918 the H.Q. stores—a vast quantity of goods with corresponding equipment—had to be moved

17 times. And yet this supply of comforts and luxuries was compelled to keep pace with an army equipped with everything requisite to secure mobility.

For assistance in the great effort the Canadian "Y" owes much gratitude to the Army authorities, British and Canadian, to the Commanding Officers of Units, and to the troops themselves, without whose co-operation no organisation could have been efficiently carried on. The Army authorities, indeed, were quick to realise the effect of the "Y" service on the morale of the soldiers and provided facilities with a gratifying willingness, while in nearly every case Commanding Officers, more closely in touch with the needs of the men, lent their influence and support.

How the Men Helped. Here is a typical illustration of the assistance given by the soldiers themselves. The "Y" officer at the Base was warned only a few hours ahead of the impending attack on Arras of August 26, 1918. As the Corps had just returned from Amiens, there were no supplies on hand for the "Y's" free distribution of food and comforts to the wounded, which was a feature of every battle. The "Y" officer appealed in person for aid to the O.C. of the Base; but there were only two lorries available, and the drivers had been on duty for 24 hours without rest. "I won't order them out," he said, "but if you can get them to take the stuff up from the port I will let them go."

The "Y" officer put the thing to the men as they were undressing for bed, dead tired, satisfied that they had done their share of that spell of duty.

"There's a scrap on up there at Arras to-morrow morning early," said the "Y" officer, "and there are no cigarettes, or chocolate, or hot coffee, or biscuits. But there's any quantity of it on the wharves at Boulogne. Can you get it up?"

The two weary drivers and their assistants pulled on their clothes and started for Boulogne. At midnight they started back on their way to Arras, and at 4 a.m., a few minutes after the "kick-off," they were unloading the needed supplies close up to the attack. They had worked through 48 hours without a rest to furnish, through the "Y," the stores of which the fighting troops were in urgent need.

Through all the steady fighting of 1918—and the Canadian Corps saw no real rest from August 8 to November 11—the Canadian "Y" kept right up with the front lines. In all the

(642)

attacks they were on hand with free comforts at those points where the wounded could best be served. Sometimes their officers went over with the attack carrying chocolate and cigarettes. Three M.Cs were the official recognition they received, with three Orders of the British Empire, and five Mentions. But even more satisfying were the unofficial thanks of the men themselves.

With the Cavalry. The difficulties of keeping up with the fighting Units are well illustrated in the "Y" work with the Canadian Cavalry Brigade. The "Y" officer had no lorry for the service of the mounted men. Finally the O.C. found him a horse, an old French buggy, and a man. Thereafter, wherever the Cavalry went into action the old buggy—starting well ahead so as to be in at the finish—lumbered with a case of tea, two cases of milk, two bags of sugar, a tea-urn, and some cigarettes. But as the travelling had to be by night to conceal the movement, selection of the smoothest course was impossible.

Once the springs broke, just as the Cavalry were passing through captured Peronne. A German waggon was commandeered, a second horse added, and so satisfactory was the service thereafter that all the Cavalry canteens were handed over to the management of the "Y."

After the Armistice. The Armistice and consequent movement up to the Rhine did not relieve the "Y" of its responsibilities, though they did lessen its worries. There were theatres and other buildings for the requisitioning; there were light and heat and stability and German orchestras. But there was the added necessity of providing for a bigger programme than ever, as the soldiers now had not only fewer interests but more time on their hands.

To meet these contingencies the "Y" made arrangements of a more ambitious character than anything hitherto contemplated, much less attempted. There were three large units to entertain in Germany—two Divisions and the Corps Troops. For one Division alone 12 theatres were employed and 15 canteens opened. The extent of the patronage is shown by the expenditure in those canteens. In thirteen days the takings amounted to more than \$50,000. In one Brigade there were four cinemas in operation, and every night 2,500 men were entertained in rotation, and at night 2,500 men were entertained by cinemas, suppers, and variety shows.

In Belgium. In Belgium, where two Divisions remained, and whither the other two Divisions and the Corps Troops subsequently retired in the process of demobilisation, similar service was given. One striking feature of this was the free entertainment at Liege of an entire Division in parties which were spread over two days. The Army provided the food and the "Y" found and staffed the kitchens, rented sleeping space, provided guides and tours, and opened a swimming bath that cost \$40 a day to heat alone. In Brussels similar entertainment was available for the Canadians at the moderate cost for the two days of \$1.40 per man.

At Havre, the port of embarkation from France during demobilisation, special efforts were made to supply the wants of the returning soldier, one of the features of the programme being a cinema constructed at a cost of \$15,000 to seat 1,500.

At the same time, the Wonderful Athletic Ground. soldier in the rear areas, working day after day without the sustaining excitement of the fighting zone, was not neglected. At the Base Camps at Etaples and Aubin St. Vaast there were the usual "Y" huts and athletics and entertainments. At Aubin St. Vaast the "Y" laid out an athletic ground which could not be equalled in Canada, containing as it did in one area a football field, five indoor baseball diamonds, one outdoor baseball diamond, a running track of a quarter of a mile, three quoiting pitches, five tennis courts, a tug-of-war ground, a boxing and wrestling ring, a jumping pit, and fields for lacrosse, cricket, Badminton, and gymkhana or mounted horse events. In addition there were a canteen and a reading and writing room. In the completion of such an ambitious enterprise the Canadian Engineers had, of course, to co-operate, the same branch of the Service making it possible to construct as many as four running tracks in the area of one Division.

The Railway Troops and the Forestry Corps Units were paid similar attention, so far as conditions permitted, for the Foresters were scattered over France down to Bordeaux in the south-west and the Jura Mountains on the borders of Switzerland.

In England. The work of the Canadian "Y" would have been incomplete had it not kept close to the Canadian soldier during the many months of his presence in England—whether in training, or wounded, or convalescent, on leave, or in the stationary units such as the London permanent force and the Forestry Corps. The British end of the work grew rapidly,

more than keeping pace with the extension of Canadian enlistments and arrivals. The effort in England, which began with but nine centres in the early days, grew to embrace 84 centres before the end of 1918.

The recruit, fresh from Canada, was isolated in segregation camps for several weeks, and there the Canadian "Y" provided for him the only facilities available for amusement and for buying what he needed. In the training camps, such as Witley and Bramshott, morale, as well as spirits, were maintained by a round of entertainment. In Witley Camp, for instance, were eight distinct huts, in each of which three concerts a week were put on by professional entertainers.

In the Canadian hospitals throughout England the "Y" did much excellent service by means of canteens and concerts, some of the latter being held in the wards for the benefit of the helpless. At the Canadian Military Hospital at Orpington the authorities turned over to the "Y" a theatre, seating 550, which was used during the day as a reading, writing and recreation room.

The Canadian Forestry Corps, scattered as it was from the South of England to the North of Scotland, isolated in many cases from the entertainments and amenities afforded by towns, provided the "Y" with great scope for its enterprise. In 38 scattered groups recreation rooms and canteens were opened under sergeants, and the usual plans were put into action for supplying the attendant deficiencies—distance from home and from the nearest towns. It was, indeed, generally conceded by Commanding Officers that the "Y" made up for many of the deprivations incidental to such lone camps.

The headquarters of the operations of the Canadian "Y" in the British Isles was, of course, London. Into London poured the Canadians on leave—from their first landing leave to the leave that precedes Demobilisation. London was the Mecca for all the troops and the situation which arose could never be properly coped with until experience and increasing facilities prompted the erection of the Beaver Hut, the most famous hut Overseas.

The Beaver Hut. Situated in the Strand, in the very heart of London's busiest life and traffic, the Beaver Hut, from its first week, became the centre for Canadians on leave. There the soldier can satisfy his every want. There he leaves his burden of kit in safety. He dines there, sleeps there, plays

billiards there, buys his Canadian "tit-bits" there, purchases his theatre tickets there at about half the regular price, reads English or Canadian papers and magazines, listens to an orchestra or to unscheduled music, of which there is plenty at any hour. There, too, he exchanges his French money into English without loss, asks questions on every conceivable subject on which he is in the dark, and arranges for his trips about London or the British Isles. Sight-seeing tours of London in charge of guides start from the Beaver Hut twice every day.

There is, too, at the Hut a complete theatre, in which there is either a cinema show or a play or a concert every afternoon and evening, and often in the morning.

Every Need Supplied. In the spacious dining room as many as 4,800 meals have been provided in a single day—served by relays from among the 800 well-known Canadian and English women who give their services as waitresses and cooks. And the prices are extraordinarily low as compared to those even of the most moderate London restaurants.

Dances, too, are a regular and greatly appreciated feature of a varied programme, while kindly English hostesses invite the Canadian stranger to their homes.

If he fails to find sleeping accommodation in the Hut—the space is unfortunately limited to 160—a bed is found for him elsewhere and transportation provided. If he is in real want, arrangements are made for taking care of him. Small wonder the Beaver Hut has come to be the one spot in all London where the Canadian knows he is unlikely to ask too much.

As Tourist Agency. In addition, the Leave Department at the Beaver Hut and the Visé Office in Southampton Street relieve the Canadian who would see Great Britain from all possible worry. There are certain regular tours of which every stage is definitely arranged. But no matter where he wants to go, or when, the soldier, thanks to this Department, can secure better facilities than he could obtain from a regular tourist agency, and the expense is much less than if he undertook the trip on his own account. In many centres the visiting soldier is met by local people and entertained during his stay. During the month of December, 1918, 2,754 soldiers took advantage of a complete or a partial Leave Department programme.

Apart from the Beaver Hut there are several other storage places for kit in London open to Canadians, including one at Victoria Station, at which terminus most of the men arrive when on leave from France. The "Y" also provides an Athletic Field, together with equipment for all sorts of games, for those desiring outdoor recreation while staying in London. The Canadian Wing of the Officers' Club at Eaton Square is also a section of the "Y" service.

Nor are the soldiers permanently on duty in London by any means forgotten. All the "Y" huts in London are open to the men in the various and administrative offices, and at Millbank there is a special hut, with a restaurant and recreation room, for the accommodation of the numerous staff employed at the Pay Office and the other Canadian offices in that vicinity.

The Religious Side. The religious side of the Y.M.C.A. programme has, too, by no means been neglected, and every effort has been made, sometimes in most difficult circumstances, to provide special services to meet exceptional conditions. In addition to the official Parade Services, generally held in the Y.M.C.A. Huts, there have been organised, and regularly held, Bible Classes, Good-night Services, "Sing-Songs," Addresses by special speakers drawn from Canada and Overseas, and personal interviews, all followed up by a series of leaflets (the "Y" Pay Book Series), of which over half a million copies have been circulated.

Throughout, the Chaplains have heartily co-operated, and a close and happy working arrangement with the Chaplain Service has been effected in order to simplify operations, prevent overlapping and more effectively meet the men's needs generally.

Education. The Canadian "Y" has always been interested in education, and lectures of an educational nature have been features of the programme, especially in England. As time went on the need for special effort among troops, so long withheld from the advantages of the home schools and colleges, induced the Canadian Y.M.C.A. to bring to Europe Dr. H. M. Tory, President of the University of Alberta, to investigate the opportunities for furnishing some scheme of education of which the Canadian soldiers could avail themselves. This idea developed into the Khaki University, which is dealt with in full elsewhere; and it is the proud record of the Canadian Y.M.C.A. that it collected half a million dollars to further the enterprise. The "Y," indeed, has provided all the funds necessary, with the exception of the financial outlay represented by the pay of their officer teachers released by the Military Authorities to act as the educational staff.

Demobilisation Duties. With Demobilisation came added duties for the Y.M.C.A. Few of their existing operations could be lessened, and with the taking over of new camps at Rhyl, Liverpool, and Ripon, three new centres had to be formed. This entailed greatly increased expenses and a wider organisation for entertainment, in sections of England which had not before been touched. In these camps, too, as in the "Y's" Demobilisation programmes in France and Belgium, amusement had to be furnished on a liberal scale. Additional concert parties had to be put on the road, new staffs collected and additional shipping arrangements made.

In this work, however, the "Y" was well backed and encouraged by Commanding Officers, without whose hearty co-operation and influence the best results would have been impossible. Help was also freely given from the various Units, and in the task of organising sports the "Y" had the co-operation of the Army Gymnastic instructors.

Russia and Palestine. It is not only in England and France, however, that the Canadian "Y" has marched with the troops. It had officers with the Canadian Detachments in Russia—at Archangel and on the Murman Coast—and its Russian work, carried on under the most trying conditions of climate and distance, has been of the greatest value and comfort to those isolated Canadians. The "Y," too, has even reached out a brotherly hand to Canadian Railway Troops in Palestine.

Aim of the Machine. An interesting and most important point in connection with the Canadian "Y's" far-flung activities relates to its finances.

The funds to provide such a colossal service come from two sources—Canadian contributions and canteen profits. The people of Canada have given liberally; none the less, opportunity would have been more circumscribed but for the added possibilities opened up by canteen sales. In France, for instance, 5 per cent. of the total sales—the equivalent of 25 per cent. of the profits—was returned directly in cash to the Units to secure extra comforts for the men in the field; and the entire balance is being expended Overseas in the "Y" service to the Canadian soldier.

In considering the whole of this complex question of canteen prices and profits, however, it should be borne in mind that the Canadian "Y" had, in France, no control over the prices it charged. These were fixed, and have throughout been controlled

by the British Army Authorities. In any case, there could of a certainty have been no better way of employing the "Y's" profits than in the provision of additional necessities, comforts, and entertainments for the Canadian soldier and in the general furtherance of a wonderful programme which placed at his command aids and supports, physical, mental and spiritual, which it was not within the power or the sphere of any other organisation to provide.

Such was the aim in the adaptation of a peace-time machine to the needs of Canadians fighting Overseas in this greatest of wars. Such was the end of the great effort which had no other ambition than that of—" Service to the Troops."

Non-Military Organisations. BODIES WHICH PROVIDED HOSPITALITY OVERSEAS.

This Report cannot fittingly be concluded without some acknowledgment being made of the great and whole-hearted and generous services which have been rendered to Canadian troops Overseas, not merely by organisations whose recognised object was the welfare of the men, but by the Canadian and British peoples as a whole. In this vast effort of real sympathy and kindliness and aid, the Canadian and the British peoples vied with one another to such a degree that it is unfortunately impossible even to mention by name the long list of organisations which rendered assistance, much less to indicate the individual efforts of hundreds of thousands of people, rich and poor, of high and oftentimes of humble estate, who laboured together for the good of the Canadian troops.

The people of Canada loosened wide their purse strings and the people of Great Britain not only opened their purses but opened wide their homes. A great number of the "stately homes of England "-which constituted but a mere phrase to the majority of Canadians prior to the War-have since become both real and ideal homes to Canadian officers and men who were on leave or recovering from wounds and sickness. It was not, however, merely the houses of the great which were thrown open to them. During their stay in the British Isles almost every class of the community afforded them hospitality of some kind. Practically every home in the country, from the Royal Palaces to suburban villas, were accessible to both officers and men. So widespread indeed was this net of hospitality that every Canadian in England was gathered in to some circle of new acquaintances, and in this way there have been formed hundreds of thousands of new and lasting friendships which must assuredly do much to bind the people of the two countries closer together in the future.

Some endeavour has been made to deal with this phase of the question in the sections of this Report which concern the activities of the Canadian Y.M.C.A. and the Canadian Red Cross; but there are other organisations, not mentioned in those sections, which irresistibly claim attention and are worthy of sincere and grateful thanks. Among these are the Canadian War Contingents Association, the Canadian Field Comforts

Commission, the Maple Leaf Club, the Imperial Daughters of the Empire Club, and the Beyond the Seas Association, whose activities are here reviewed in brief.

This by no means exhausts the list of both Canadian and Imperial Organisations which have lent their aid and bestowed their hospitality on the Canadian troops, and it is felt that mention must be made of the generous and kindly way in which the Committees of the various Service Clubs in London threw open their premises to Canadian officers. An especial debt of gratitude is due to the Committee and members of the Royal Automobile Club for the surrender of the whole of their splendid premises to the hospitality of Overseas Officers and to the Beyond the Seas Association for its establishment of the Canadian Officers' Club at Chesterfield Gardens.

CANADIAN WAR CONTINGENT ASSOCIATION.

The formation of the Canadian War Contingent Association in August, 1914, was the outcome of a desire on the part of several Canadians in the United Kingdom, and of the Anglo-Canadian community generally, to assist in promoting the happiness and well-being of the Canadian Overseas Military Forces on their arrival in England.

The two main practical objects to which the efforts of the Association have been largely devoted are—

- 1. The supply of extra comforts to the troops at the Front to supplement official issues, and the provision of other articles needed by the men which they could not otherwise easily obtain.
- 2. The operation and maintenance of a hospital for the general use of Canadian and Imperial troops.

A Hospital was established and opened at Beachborough Park, Shorncliffe, in October, 1914, through the kindness and generosity of the late Sir Arthur Markham and Lady Markham. About 3,000 sick and wounded passed through its wards up till the end of December, 1918.

In the matter of comforts, the Canadian War Contingent Association has received the cordial co-operation of its Branches in Toronto and other parts of Canada, also of many Chapters of the Imperial Order Dáughters of the Empire, and various other Canadian associations, societies and individuals. About 30,000 cases of comforts and hospital supplies were sent from Canada, including 1,500,000 pairs of socks—of enormous value

to the men—and innumerable other articles of clothing, food and comforts, which have added very much to the happiness and well-being of the Canadian Forces Overseas.

During the period of fighting the Association sent out to Canadians at the front 50,000 cases, each weighing at least fifty-six pounds, and containing a large variety of comforts. The number did not include thousands of smaller packages sent through the postoffice or the large number of parcels and cases re-directed to Units and individuals. Many parcels were forwarded to Canadian sailors serving with the British Fleet At the request of the Imperial Government the Association undertook also the distribution of parcels arriving from Canada and the United States containing dutiable articles addressed to Canadians serving in Imperial Units.

In addition to the comforts received, about £100,000 in cash has been contributed towards the work from friends in Canada and in the United Kingdom. Part of this money was spent on the maintenance of the Association's Hospital at Shorncliffe, and the balance in connection with the purchase and distribution of extra comforts for Canadian troops in the field. It is estimated that the total value of the goods distributed by the Association up to November 11, 1918, was about £400,000.

Letters from Lieut.-General Sir Arthur Currie, G.C.M.G., K.C.B., Commanding the Canadian Corps, and the General Officers Commanding the four Canadian Divisions, conveyed the appreciation of all ranks at the Front of the work of the Canadian War Contingent Association, and large numbers of letters are received every week direct from various Units, all in the same strain.

THE CANADIAN FIELD COMFORTS COMMISSION

The Canadian Field Comforts Commission is the Military organisation for the distribution of gifts and voluntary supplies from Canada to Canadian soldiers in the Field. It was formed at Valcartier in September, 1914, and came Overseas the following month.

The first Administrative Headquarters of the Commission were at Salisbury Plain. They remained there until March, 1915, when they were transferred to Ashford, and two months later to Shorncliffe, where they are still.

Many individual contributors and more than one thousand women's societies, representing eight hundred and seventy-two towns in Canada, were in direct correspondence with the Commission and regularly contributed money and comforts. The Commission had a bonded warehouse for the receipt of dutiable goods. Supplies for the troops were forwarded from Canada by the Department of Militia.

During 1918, the following articles were sent to Canadian troops at the front by the Commission:—

Bandages and first-aid article	es .	 17,451
Books, games, cards, etc.		 197,538
Candles, cookers, etc		 39,378
Cigarettes		 15,178,646
Christmas gifts		 175,291
		 46,619
Miscellaneous		 47,192
(<u>L</u>		 164,745
(1	• •	 638,704
Shirts, sweaters, etc		 67,807
Sporting goods		 39,378
		 34,017
/		 796,023
Toilet and cleaning articles .		 65,982
Tot	al	 17,478,081

Value of comforts as above, 1918, £217,723 14s.

Fifty per cent. of pieces handled in 1918 were forwarded unopened to designated Units. Therefore the distribution list and estimate of value only partially represent the total comforts despatched.

Staff, quarters and transport being provided for the work of the Commission by the Overseas Military Forces of Canada, all contributions of money, unless designated for special purposes, were devoted to direct expenditure on comforts for general distribution. The accounts were audited yearly by kindness of Messrs. Price, Waterhouse & Co. Total receipts in cash were:—

					£	S.	d.
1915,	Jan.	1 to D	ec. 31	 	2,839	1	4
1916	"	"	,,	 	6,954	19	2
1917	,,	,,	,,	 	10,082	4	10
1918	,,	2.7	,,	 	9,531	18	0
					£29,408		

The number of parcels and packets despatched to Canadians in France was—

663
7,789
7,225
19,325
24,735
39,737

MAPLE LEAF CLUB.

The King George and Queen Mary Maple Leaf Club was organised and began its good work in August, 1915. The primary object of the Club was to provide attractive social centres and free accommodation at moderate charges for Canadian soldiers on leave in London from the Front or camps in England.

The first premises were opened at 11, Charles Street, Berkeley Square, by Sir Robert Borden, in a house loaned by the Hon. Mrs. Ronald Greville. The Club grew so popular with Canadians that a rapid increase in accommodation, to meet the demands and needs of the men, became imperative.

It was further decided by the Committee to extend the scope of service by opening store rooms for the men's kit and equipment, and bureaus for cashing cheques and depositing money and valuables for safe keeping, and to accommodate men arriving from France at all hours during the day and night. Many of the men had pay cheques for $\pounds 20$ or more, and arrangements for cashing them were made through the Chief Paymaster of the Overseas Military Forces of Canada.

The first house provided by the Club had 50 beds. In April, 1916, another house to accommodate 130 beds was taken. By the end of 1918, the total number of beds provided by the Club in different parts of London was 1,280, distributed among 16 modern houses in the best residential districts of London. In addition there were two large recreation and dining huts, situated near Victoria and King's Cross railway stations, provided by the Club, in which everything was free except the meals. The men were charged one shilling per night for a bed, and meals were one shilling each, except dinner, which was one shilling and two pence.

Recreation rooms with billiard tables, libraries in which were daily newspapers, current periodicals, standard books and writing materials, were provided free at all the Club buildings. Free tickets for concerts, theatres, sight-seeing trips, and visits to private homes, were often available to large numbers of men.

A special committee of the Club, known as the Overseas Reception Committee, composed of 50 London business men and 14 non-commissioned officers, detailed by the Canadian Military Authorities, met all troop trains at the London railway stations to direct Canadian soldiers to wherever they wished to go. Frequently transport conveyed the men across the City. All the Club buildings were open day and night.

Since the formation of the Club in 1915 until the end of 1918, the following outlines in figures show the volume of service to the credit of the Club:—

Number of cases dealt with by the Overseas Reception Committee	881,450
Number of meals served at the club	
buildings	767,781
Number of beds occupied	443,539
Average number of voluntary workers	155

The total receipts of the Club up to December 31, 1918, were £69,525 14s. 6d., made up as follows:—

	£	s.	d.
Sundry donations	42,245	10	9
Received from Ontario Govern-			
ment in cash	9,280	11	9
Received from Imperial Order			
Daughters of the Empire in			
Canada	2,200	0	0
Amount expended by the Ontario			
Government direct	15,799	12	0
(T)			
Total	£69,525	14	6

In addition to the subscription accounted for above, the Ontario Government expended £12,386 on equipment at the Grosvenor Gardens and Elizabeth Street buildings and on other incidentals.

I.O.D.E. CLUB.

The Imperial Order Daughters of the Empire Club at Lancaster Gate, London, was opened in March, 1918, to provide an attractive home at which Canadian Nursing Sisters, on leave from France or Hospitals in Great Britain, could stay at a moderate charge. It has been to Canadian Sisters in London what such clubs as the Royal Automobile have been to Canadian officers.

The charge for bed and breakfast at the I.O.D.E. Club is four shillings and sixpence, for lunch one shilling and sixpence, and dinner two shillings and sixpence.

The rent of the building furnished is £125 per month, so that the Club cannot be self-supporting. The Chapters of the Imperial Order Daughters of the Empire in Canada pay the rent, cost of equipment and lighting.

Since the Club was opened until Dec. 31, 1918, over 1,600 sisters have been accommodated and over 25,000 meals served.

In addition the Chapters of the Imperial Order Daughters of the Empire in Canada took a special interest in the I.O.D.E. Canadian Red Cross Hospital, Hyde Park, London, which was equipped for the Canadian Red Cross Society in 1916.

CANADIAN OFFICERS' CLUB.

The Canadian Officers' Club at Chesterfield Gardens, London, was opened in July, 1918, by the Beyond the Seas Association.

No fees or subscriptions of any kind were charged for membership. The charge for bed and breakfast was five shillings and sixpence. Up till the end of December, 1918, the number of officers who had slept at the Club was 3,914, and the number of meals served 15,636. The rent of the Club and certain other expenses are guaranteed by Sir John Leigh, Bart., who, as chairman, works energetically for the welfare of the Club.

ROYAL AUTOMOBILE CLUB.

Since March, 1917, the full membership privileges of the Royal Automobile Club have been extended to all Canadian Officers Overseas without charge.

For bed and breakfast the nominal charge of five shillings and sixpence was made. The hospitality of the Club is indicated by the appended statement made up to Dec. 31, 1918.

12,122
7,161
119,296
44 .480

ST. DUNSTAN'S HOSTEL FOR BLIND SOLDIERS.

At this Institution, which is under the direction of Sir Arthur Pearson, G.B.E., and is maintained by voluntary subscription, have been received all Canadian soldiers who have been blinded in the War, after their active treatment at Hospital is finished.

Here they are trained and re-educated for their new life, and, in addition to being taught the Braille System and the use of the typewriter, are trained in some useful occupation, such as massage, telephone operating, map making, basket weaving, shoe repairing, carpentry and joinery, as well as poultry farming and other outdoor pursuits.

Not until they have satisfied their instructors at St. Dunstan's that they are qualified to earn a living are they sent out to their homes in Canada. In their subsequent career they are followed and helped by the "After Care" Department of the Institution.

Sixty-six Canadian soldiers have received the benefits of this Institution, of whom about forty-six are still receiving instruction.

DEMOBILISATION.

INDEX.

	PAGE
Work of Demobilisation Committee	 516
POLICY OF DEMOBILISATION—	
(Troops in France and England)	 516
DEMOBILISATION OF DIVISIONS	 517
REASONS FOR RETURNING TROOPS VIA ENGLAND	 518
Concentration of Troops—	
(From France)	 519
Leave and Boarding	 519
DOCUMENTATION	 519
PAY	 522
KINMEL CAMP—	
(Troops in England and from outside Corps)	 523
Married Men	 523
Embarkation Officers	 523
Difficulties of Transportation	 524
Numbers Repatriated up to April 1, 1919	 524
PERIOD OF DEMOBILISATION	 525

(642) LL2

Demobilisation.

WORK OF DEMOBILISATION COMMITTEE.

The magnitude and intricacy of the problem of Demobilisation was realised as early as January, 1918, when preliminary steps were taken to meet the situation which must inevitably arise when Armistice or Peace was signed.

In June, 1918, it was decided by the Minister to appoint a Committee to inquire into the whole question.

This Committee considered all the problems which beset the period of Demobilisation from the all-important question of shipping down to the steps which should be taken to keep the men employed and amused during the time which would inevitably prove trying to all concerned. It cannot, indeed, be too clearly pointed out that the psychological problems of the Demobilisation period are quite as pressing as material problems. It is quite as difficult a matter to sustain morale as it is to organise repatriation.

The signing of the Armistice necessitated the immediate putting into action of machinery for Demobilisation, and by the end of December, 1918, detailed instructions, based on the general policy agreed by the Committee during the initial stages of its deliberations, were issued in regard to the procedure to be followed, up to and including the point of embarkation for Canada.

In the meantime, immediately on the signing of the Armistice, steps were taken to begin the return to Canada of all men who could be made available to fill what ships could be secured.

POLICY OF DEMOBILISATION.

Finally, after several conferences at which the Corps Commander and members of his Staff were present, when the whole question was discussed in all its bearings, it was decided that the Demobilisation scheme should be divided into two parts:—

- (a) The Demobilisation of the Divisions of the Canadian Corps and the Canadian Cavalry Brigade, by Units.
- (b) The Demobilisation of troops on the Lines of Communication and other Units outside the Corps, such as the Forestry and Railway Troops, and the troops in the various Canadian Areas in the British Isles.

In regard to troops outside the Corps in France and troops in the British Isles, it was decided that priority should be given to:—

- 1. Married men and widowers with children, in accordance with length of service Overseas from Canada.
- 2. Single men in accordance with length of service Overseas from Canada.

DEMOBILISATION OF THE DIVISIONS.

The question of the return of the troops of the Divisions of the Canadian Corps and the Canadian Cavalry Brigade to Canada by Units without the consideration of claims to priority, was a matter for anxious concern, but Lieut.-General Sir Arthur Currie, the Corps Commander, strongly urged that military exigencies demanded that such a policy should be carried through.

This policy, therefore, was, in the end, adopted, the reasons advanced by the Corps Commander in its support being briefly as follows:—

- 1. As long as the Corps constituted part of a larger military organisation, such as the Army of Occupation, it must remain a fully organised Unit from a military point of view.
- 2. If men were withdrawn on account of length of service, occupation, etc., it was probable that all the administrative service of the Corps would break down and the Corps become immobile.
- 3. The principle governing the Demobilisation of a Division should be that the men should return home by Units, in order that the organisation under which they had been controlled and supplied and had fought, should remain in existence as long as possible.
- 4. It was believed that the men would arrive in Canada happier and feel more contented and with discipline better maintained if the Unit organisation were adhered to until the last possible moment.

The above considerations having been accepted, it was further decided, on the recommendation of the Corps Commander, that the Divisions should be sent home in the following order:—

Third Division.
First Division.
Second Division.
Fourth Division.

If the military situation had permitted it, the Divisions would have been returned to Canada in the order in which they arrived, viz., First, Second, Third, Fourth. This, however, was impracticable. The First and Second Divisions had been sent to the Rhine first, because at that time it was the intention that all Canadian Divisions should go to Germany, and that if the First and Second Divisions went first they would later on be relieved by the Third and Fourth. On account, however, of various factors ruling the military situation, it was not found possible to send the Third and Fourth Divisions to Germany, and as it was impossible to relieve either the First or the Second by either the Third or the Fourth, it became necessary to nominate either the Third or the Fourth Division for Demobilisation first.

REASONS FOR RETURNING TROOPS VIA ENGLAND.

This disposed of the problem of the Demobilisation of the Divisions in the Field, but the human side then entered into the question, owing to the fact that the great majority of the men had either relatives or friends in the British Isles whom they wished to see before they returned to Canada.

To have attempted to grant leave to the large numbers of Canadian troops in France who desired to visit England, by providing them with passages in both directions, in order that they might later embark from France, was wholly impracticable.

There were, indeed, insuperable difficulties in the way. To begin with, immediately after the Armistice was signed, the Demobilisation of the Imperial Army was begun on a very extensive scale, while British prisoners of war, who were repatriated in large numbers through the Lines, took up a considerable amount of transportation facilities. In addition, there was a great flow of British troops on leave back and forth from England, and at the same time there was an immediate movement, on an

extensive scale, of French and Belgian peasants, who were returning to the territory recently occupied by the enemy.

It was therefore decided, in order to meet the wishes of the Canadian troops, and also that all might be treated on the same basis, that as there were neither serious military nor economic objections to the scheme, the Canadian Divisions in the Field, together with the troops outside the Corps, should be returned to Canada via England.

To carry out this scheme successfully, however, it became necessary to establish Concentration Camps and special Demobilisation staffs in France.

CONCENTRATION OF TROOPS. From France.

A brief sojourn in England is absolutely necessary in order to re-organise Units arriving from France in such a fashion as to enable them to proceed direct to their Dispersal Centres in Canada. The system adopted after bringing them over from France is to establish them in one of the Canadian Areas. The troops of the Divisions returned from France were at first concentrated at Bramshott Camp and subsequently at Witley as well. From these Centres they were finally entrained direct to the ports of embarkation.

Corps Troops, and the troops arriving from France from Formations outside the Corps, are sent to areas in England to be prepared for demobilisation and are dispatched thence in drafts to Kinmel Camp, whence they proceed direct to the port of embarkation.

LEAVE AND BOARDING.

To enable the troops to visit their friends and to attend to their private affairs or arrange for the repatriation of their family, each man is given eight days' leave. It is also necessary for him to be boarded both medically and dentally.

DOCUMENTATION.

There is the further necessity of getting the men's documents in order, and the process of Documentation entails not only very great detail and consequently a considerable amount of time, but is also liable, quite unavoidably, to involve delay.

It has been laid down by the Authorities in Ottawa that the following documents must be prepared and completed before a man or an Officer is permitted to embark for Canada:—

SOLDIERS' DOCUMENTS ON EMBARKATION.

- 1. Triplicate Attestation Paper (M.F.W. 23) or Particulars of Recruit (M.F.W. 133).
- 2. Casualty Form (A.F.B. 103).
- 3. Medical History Sheet (M.F.B. 313 or A.F.B. 178).
- 4. Proceedings of Medical Board (M.F.B. 227 or M.F.W. 129). (In triplicate.)
- 5. Dental Certificate (C.A.D.C. 5009a).
- 6. Field Conduct Sheet (A.F.B. 122).
- 7. Proceedings on Discharge (M.F.B. 218a). (Other Ranks.)
- 7a. Proceedings on striking off strength (M.F.W. 2591). (Officers and Nursing Sisters only.)
- 8. Discharge Certificate (M.F.W. 39). (Enclosed in special envelope 260 M.). (Duplicate.)
- 9. Copy of Discharge Certificate (M.F.W. 39a).
- 10. Dispersal Certificate (C.D. 3). (In triplicate.)
- 11. Equipment and Clothing Statement (Q.M.G. Form D.O.S. 2).
- 12. Last Pay Certificate (P. 851).
- 12a. Duplicate Last Pay Certificate (P. 851a).
- 13. Pay Book (A.B. 64).
- 14. War Service Gratuity (P. 880).

(Two of the above are in duplicate and two in triplicate.) *Note.*—An Officer is gazetted out of his Commission, thereby

making a Discharge Certificate unnecessary.

"SUNDRY DOCUMENTS."

In addition to the above, all "Sundry Documents" held at the Record Office, O.M.F.C., must accompany the men. These range from one to twenty and include such documents as:—

Regimental and Company Conduct Sheet. Particulars of Family. Birth Certificate. Regimental Court-Martial. Court of Enquiry. Statutory Declarations, etc. The necessity for attending to all these details not only throws much work on the Record Office, London, but involves an immense amount of clerical labour in the sorting and assembling of the Documents at the different Areas and Concentration Camps. The work, too, has been somewhat handicapped by the necessity for creating new Staffs to handle it, and by the fact that the process of Demobilisation as a whole rendered it impossible to secure officers of requisite experience. Unforeseen circumstances, also, not only contribute to the work but occasionally add to delays. For instance, should sailings be cancelled or postponed, for reasons over which the Canadian Authorities have no control, many corrections are necessitated in Part 2 Orders, Casualty Forms, and so on, while if men have received further advances of money, changes are necessitated in Last Pay Certificates and Pay Books.

An individual soldier may also, by his own action, retard his embarkation. For example, should he fail to fall in on a signing parade, or be absent without leave, it may be necessary to transfer him to a later Draft, as it is not reasonable to inconvenience a number of men for the sake of one. Again, should a soldier report to an Area other than that to which he is ordered, his documents will be in one Area while he himself is in another; and owing to the scattered nature of Reserve Units, Regimental Depôts and Concentration Camps, there must be a considerable delay in bringing any man and his documents together. At times, in order to avoid lengthy delays, it is necessary to create certified true copies of documents and this, too, is a process which requires time and involves extra work.

The documents of each Officer and man are carefully checked before embarkation, when a further scrutiny is carried out on board during the voyage. Documents 12 and 13 are handed to the Paymaster for final revision, if any is needed. The remainder of the Documents are then once again examined by the Officer in Charge Documents in the Ship.

To conduct all the work in relation to documentation thoroughly and accurately, naturally, occupies some time before the soldier is ready to leave England, but on the other hand delay in discharge and payment of gratuities is by this means avoided in Canada. The thoroughness and efficiency, indeed, with which the whole of this work of preparation for Demobilisation is conducted in England, is evidenced by the fact that troops arriving at their Dispersal Centres in Canada are ready for *immediate and instant Demobilisation* there.

PAY.

As soon as a soldier is warned for Canada his pay is immediately adjusted, each man being shown his account and required to satisfy himself that it is in order and correct. The procedure which governs his Last Pay Certificate is as follows:—

- 1.(a) The soldier is issued with the current amount of pay (usually equivalent to fifteen days' pay and allowances) to which he is entitled at that date, subject to any deduction for Assigned Pay or Deferred Pay.
 - (b) An additional advance equivalent to not less than fifteen days' pay and allowances for the two weeks immediately following nomination for return. This payment is made without any deduction for Assigned Pay or Deferred Pay.
 - (c) Any available free balance in excess of (a) and (b) if the soldier so desires.
 - (d) In special cases, the soldier is taken by his Company Officer before the Regimental Paymaster, who enquires into the circumstances, dealing with each case on its merits and making such advances as may be advisable.
- 2. If a soldier is detained in England after the issue of the Last Pay Certificate, he receives an advance of pay every fortnight after the payments mentioned in para. 1. These fortnightly advances are £2 for soldiers whose accounts are in credit, and £1 for soldiers whose accounts are overdrawn.
- 3. Where the soldier is returning to Canada accompanied by his dependent, Separation Allowance and Assigned Pay are issued for the current month, and, where requested, for the subsequent month also, in order to facilitate the return of the dependents to their homes in Canada.
- 4. After embarkation, each soldier is advanced £1 by the Conducting Paymaster of the Militia Headquarters Staff, Ottawa, and the authorities in Canada have arranged for each man to receive "train money" after arrival at the port of debarkation in Canada.

Note.—Clause "D," para. 1, is also applicable to para. 2.

KINMEL CAMP.

Troops in England from Outside Corps.

To facilitate the embarkation of the Canadian troops already in England and those returned in drafts from outside the Corps in France, a concentration camp was established at Kinmel Park. This camp is about 30 miles from Liverpool, from which port the majority of sailings take place, and it is from this camp that the men are entrained on the territorial system, the whole of the work being carried out by the Canadian Staff.

Canadian troops in England do not, in the majority of cases, receive special embarkation leave, as they receive regular periodic leave in such a way as to enable them to attend to their private business. The system of boarding and documentation is the same in respect to these troops as in the case of troops from France.

MARRIED MEN.

The work of repatriating the dependents of Canadian soldiers is carried out by the Department of Immigration and Colonisation of the Government of Canada in London, the men being found accommodation in the ships, the sailings of which are arranged for by that Department.

For the sake of convenience in handling them, the married men are concentrated in a special camp at Buxton, whence they are drafted to the vessels which carry their wives and families. Their boarding, documentation, etc., are the same as in the case of other troops.

EMBARKATION OFFICERS.

Train and transport facilities are arranged by the Ocean and Rail Transport Department, Quartermaster-General's Branch. The actual embarkation work is conducted by two Canadian Officers who have been specially attached to the Imperial Transport Commandant at Liverpool. Sailings, however, occasionally take place from other ports, and six other officers have, therefore, been trained as experts in this Branch of work and these are moved from port to port to carry out the work of embarking the Canadian troops as the occasion demands.

DIFFICULTIES OF TRANSPORTATION.

Only those who have to deal with the problem of transportation can realise the extremely up-hill work there has been from time to time to find the ships required. The German U-boat campaign had resulted in a serious—not to say critical—depletion of shipping, so that after the Armistice was signed, the number of vessels available was totally inadequate to the demands which were being made on British shipping as a whole. It must also be borne in mind that in the subsequent allocation of shipping there were many claims to be met. Apart from the demands of the military situation, which necessitated the relief of Imperial troops in the East and elsewhere, ships were urgently required for the return of the troops of the United States, Australia, New Zealand, and South Africa.

It was also quite impossible to guarantee that a ship would sail on the date given. This was due to many reasons, including a shortage of material and labour, and numerous labour disputes, principally among the dockers at the points of embarkation.

It was, therefore, inevitable that delay and consequent disappointment should occur, but, as already has been indicated, the average of sailings has been more than maintained, with the result that troops have been returned at a rate equal to the speed at which the authorities in Canada stated that they were prepared to disembark, entrain, disperse, and demobilise them there.

NUMBERS REPATRIATED UP TO APRIL 1, 1919.

In spite of the many difficulties of transportation dealt with above, the number of Canadian troops repatriated up to April 1, 1919, was in excess of the original estimate. From November 11, 1918, to April 2, 1919, the total number of Canadians returned to Canada from England, and to Canada from France via England, was 110,384. This total included 5,400 patients, who were returned in ambulance transports, and troops of the Third Division, the whole of which had sailed by March 19, with the exception of Divisional Headquarters and a few details. The balance was made up by a proportion of troops from France outside the Corps, but the majority consisted of long-service men and married men already in England and who had seen service in the Field. Corps Troops, and troops outside the Corps, and the long-service men all

passed through Kinmel Camp, the married men sailing with their families in dependents' ships. From November 11, 1918, to April 2, 1919, the total number of these troops returned through Kinmel was 91,485.

The whole of the First Division had arrived in England by the end of March, and it was expected that over 30,000 additional troops would sail for Canada during the month of April.

With the opening of the St. Lawrence for navigation it is expected that the numbers returned in the months of May and June will be considerably in excess of those returned in April.

PERIOD OF DEMOBILISATION.

Every effort has been made to keep the men intelligently occupied, interested and amused during the period preceding demobilisation, both in England and in France. These activities have been dealt with in full under the sections relating to the Canadian Military Y.M.C.A., Chaplain Services and the Khaki University of Canada. A gratifying result of the combined programmes has been the very great interest taken by the men in the various schemes for resettlement in civil life.



INDEX.

'A' Branch (Corps) 214	Artillery—
Abbreviations, Explanation of 292	Composition of
Accountant-General's Branch—	our Division—m. 1. Company
Functions—Record . 413-415	Observation Section 273
Adjutant-deneral 5 Diano	Organisation 198, 240 Statistics 57
Statistics	Training
Administration of Overseas	Ashford Depot, Closing of . 83
Forces xi., i.	Assistant - Quartermaster - General
Administrative Staff (Corps) 213	(Corps)—
Aeronautical Information Bureau	Duties
xiv., 353	Athletics 19
Air Force (Canadian) 349-354	Auditor-General's Department—
	Organisation and Functions 429
Functions 261	
Ambulances, Field— Functions	Banking Arrangements 426 Barrack Equipment and Consum-
Amiens, Battle of 108, 337	able Stores 76
Services of Railway Troops 359	able Stores
	Baths
American Army—Instructors Sup-	Battlefields Memorial Committee 51
plied to	Battalion Commanders—Exchange
Ammunition—Handling and Supply	between England and France
of	30
Anti-Aircraft Searchlight Co. 64, 122	Battalion Headquarters Adminis-
Archangel Front—Canadians on	tration
21-23, 68	Beaver Hut
Area Commandants 217	Bexhill-on-Sea—Canadian Training School for Infantry Officers 15
Army Medical Corps (Canadian).	Description Officer 226
Army Medical Corps (Canadian). See "Medical Corps."	Bordon Camp
Army Service Corps (Canadian)—	Bourley Camp 11
Administration	Bramshott Camp 14
Barrack Services	Branch Intelligence Officer. 217
Feeding Troops in England 74	Brigadiers—Exchange Detween
Operations in the Field . 73	England and France . 30
Organisation and Functions	"Brutinel's Brigade"
Personnel	"Brutiner's Brigade" 152, 160, 165, 167 Burial Officer
Personnel	Burials and Cemeteries 304
Training of 79 Repayment Issues 76 Responsibilities	
Repayment Issues	Statistics
Responsibilities	
Transport	Callibuliage Officer
	(alliounage Statistics
Allas, Dattie of	Camp Commandant 218 Camps and Training Areas . 14
Italiway 1100ps, 1200014	
Arras - Cambrai Operations of	
26 August, 1918 143	Door Titogram confi-

Canadian Corps—See "Corps, The" "Canadian Daily Record". 460 Canadian Officers' Club . 513 Canadian Red Cross Hospital for Officers 399	Chaplain Services . 205, 272, 285 Establishment 409 Fruits of Labour 411 Honours and Awards 412 Services in the Field 410 Sphere of Operations 409
Canadian Red Cross Society 402, 486 Allies, Help for 486 Canadian and Imperial Forces, Work for 486 British Isles, Work in . 488 Buildings Equipped and Opened 488 French, Work for 487 Information Bureau 490 Parcels Department 491 Prisoners of War Department 491 Special Events Overseas 493 Statistics 492	Chevrons for Overseas Service 35 Cinema Films
Canadian Section at British General Headquarters xii., 1, 375 Composition 2 Development 4 Functions 2 Status	Corps, The— Operations during 1918. Interim Report by LieutGeneral Sir A.W.Currie, G.C.O.Canadian Corps
Canteen Officers	First Period—Jan. 1 to March
Canteens	21 101 Second Period—March 21 to May 7 108 Third Period—May 7 to July 15, 120
Accommodation—See "Clearing Stations" and "Hospitals." Allocation Board xiv. Killed—Procedure as to Effects 437. Reporting of	Fourth Period—July 15 to Nov. 11 126 Organisation, Administration and Functions 193 Reorganisation, proposed . 333 Courts of Enquiry
Catering Inspector 74	Demobilisation 515
Cavalry— 50 Functions 250 Organisation 199 Record of 335, 374 Statistics 57, 375 Training 12	Demobilisation
Cemeteries 304, 435	Kinmel Camp
Ceremonial Occasions—Canadian Detachments 38	Kinmel Camp

Demobilisation—cont.	Divisions—cont.
Pay	3rd, 102, 108, 109, 110, 111, 112,
Policy 516	113, 114, 116, 119, 120, 125,
Repatriation Statistics (to April 1, 1919) 524	126, 129, 130, 138, 139, 140, 141, 146, 148, 150, 152, 154,
Reasons for Returning Troops via	156, 157, 160, 163, 164, 165,
England 518	166, 173, 177, 178, 179, 180,
Transportation Difficulties 524	, 181, 182, 185, 186, 187, 189.
Dental Corps—	4th, 102, 108, 110, 112, 113, 114,
Functions—Formation—Record	115, 119, 120, 125, 126, 137,
Statistics	139, 140, 151, 152, 154, 157, 158, 159, 160, 163, 164, 171,
Dental Laboratory 202	172, 173, 174, 175, 177, 178,
Dependents of Canadian Soldiers,	179, 180, 185, 186, 187, 189.
Repatriation of 523	5th, 115, 117, 149.
Deputy-Assistant - Adjutant - Gene-	Divisions in the Field—Proposal to
ral's Branch — Organisation,	Increase Number of . 104
Administration and Functions,	Dominion Day, 1918—Celebration
294	in France 125
Deputy - Assistant - Quartermaster - General—	Douai-Mons Operations (Oct. 11, 1918) 169
Duties of	Doullens Hospital, Bombing of 389
Diet Sheets	"Dunster Force" 20
Disabled Soldiers—Inter-Allied Per-	Educational Services, Assistant
manent Committee 469	Director of 219
Discharge—King's Certificate 36	Employment Company (No. 9) 64
Discharge Depot: Invaliding 42	Enemy Outrages on Medical Corps,
Discharges in England 44	387
Discipline and Military Law. 37	Engineering Services 94
Disposal Board—Work of . 461	Engineers 163, 173
Distinguished Conduct Medals— Number Awarded 35	Organisation and Functions, 196,
Distinguished Flying Cross—Num-	240, 289
ber Awarded 35	Reinforcement Pool 375
Division, A—	Reorganisation 63, 122 Signals
Composition of 289	Statistics
Medical Staff and Personnel 384	Training
Divisional Staff—Organisation 291	Enlistments in England 43
Divisional Train 257	Establishments 27
Divisions—	Estates and Legal Services Branch
1st, 102, 108, 109, 110, 111, 112,	437
114, 119, 120, 125, 126, 127, 129, 137, 138, 139, 141, 142,	Etaples Hospital— Bombing of
152, 153, 154, 157, 158, 160,	Bombing of 387 Statistics 396
164, 167, 168, 169, 170, 171,	Exhibitions 459
172, 173, 175, 185, 186, 187,	Eye and Ear Hospital, Westcliff
189, 190, 191, 192.	399
2nd, 102, 108, 109, 110, 111, 112, 114, 116, 119, 120, 125, 126,	Field Cashiers 424
127, 130, 137, 138, 139, 141,	Field Comforts Commission (Cana-
146, 148, 150, 154, 156, 157,	dian) 509
158, 159, 163, 164, 165, 166,	Fifth Division 115, 117, 149
167, 168, 171, 172, 180, 181, 182, 185, 186, 187, 189, 190,	Equipment, Disposal of . 82
191, 192.	· T: 17D
	M M
(642)	

530 Index.

112, 114, 119, 120, 125, 126,	See "Medals."
127, 129, 137, 138, 139, 141,	Horses and Mules, Disposal of 461
142, 153, 154, 157, 158, 160, 164, 167, 168, 169, 170, 171,	Hospital Ship Unit 401
172, 173, 175, 185, 186, 187,	Hospital Ship "Llandovery Castle,"
189, 190, 191, 192.	Torpedoing of 390
	Hospitalisation Scheme 384
Food, Arrangements as to . , 74	Hospitality Provided by Non-Mili-
Forestry Companies (Nos. 1 and 2),	tary Organisation 507
64	Hospitals 82
Forestry Corps—	Bombing by Germans . 387
Hospitals 63, 397 Record of	England, Hospitals in . 398 Overseas from England—List of,
Statistics	with Bed Capacity 396
	"Hughes Brigade" 118
Fourth Division, 102, 108, 110,	0
112, 113, 114, 115, 119, 120, 125, 126, 137, 139, 140, 151,	Imperial Order Daughters of the
152, 154, 157, 158, 159, 160,	Empire Club 513
163, 164, 171, 172, 173, 174,	Imperial Order Daughters of the
175, 177, 178, 179, 180, 185,	Empire Hospital 399, 402, 403
186, 187, 189.	Infantry— Battalions—Increase of Estab-
Frensham Camp 11	lishment 64, 104
_	Functions
Gas Services . 205, 228, 267, 283	Instructors, Supply of . 15
General Auditor's Department—	Officers, Training of 15
Organisation and Functions, 429	Organisation 197
	Functions
General Staff (Corps)—Organisation	Statistics
and Functions 207, 284	Training
General Staff (England) 7	Infectious Cases—See "Segregation Camp."
Gifts and Comforts 324	*
Gold Wound Stripe 35	Instructors— American Army, Supply to 23
Good Conduct Badges 36	Training of
Graves of Soldiers—	Intelligence Branch—Functions 210
Care of	Intelligence Department . 18
Statistics 433	Intelligence Observation Section
Gymnastic Staff 16, 219	273
Headquarters (Corps)—	Intelligence Officer 225
Organisation (Nov. 11, 1918) 329	Inter-Allied Permanent Committee
Staff 283, 284, 285	for Disabled Soldiers . 469
Headquarters Corps, M.T. Column,	T1: J. J. Mon. 49
64	Inter-Allied Permanent Committee
Headquarters Draughting Section,	mittee 469
274	Patients Returned to Canada 384
Headquarters Section 273	Khaki University xv., 192, 473
Headquarters Staffs and Units in	Aims of the Promoters . 475
England 55	Books and Libraries 481
Historical Section 454	Changes after Armistice . 478 Figures for England 480
Histories 455	Figures for England 480 Figures for France 479
Holland—Prisoners of War in, xv.,	Information Bureau 482
465	Information Bureau 482 University Established 477

King's Certificate on Discharge 36	Mesopotamia, Canadians in 20, 68
Kinmel Park (Demobilisation) 523	Messines—Services of Railway Troops 358
Labour Commandant 218	Troops
Labour Pool 375	
	Military Cross—Number Awarded,
	35
	Military Funds Trust 447
Laval Hospital 396, 403	Military Law—Administration of 37
Leave, Compassionate 38	Military Medals—Number Awarded,
Legal Services Branch 437	35
Legal Services Branch 437 Lewis Gun Officer 226	Missing—Statistics 58
Library 455	Mons Star
Light Horse	Mons-Douai Operations (Oct. 11,
Light Railway Officer 218	1918) 169
Light Trench Mortar Battery 198,238	Mont Houy, Operations Against,
"Llandovery Castle" Hospital Ship,	177
Torpedoing of 390	Moore Barracks Hospital . 398
Lys, Battle of 116	Motor Ambulance Convoy—
McGill Hospital 396, 403	Functions
McPhail's Brigade 118	Organisation 202
Machine Gun Units—	Motor Machine Gun Brigade 64,
Officers, Training 15	109, 115, 119, 237
Organisation and Functions, 197,	Motor Machine Gun M.T. Company,
231, 290.	238
Reorganisation 63, 104, 122	Murmansk, Canadians in, 20, 22-23,
Training	68
Man-Power 47	Musketry Training 14, 16
Maple Leaf Club 511	Mytchett Musketry Camp . 14, 16
Marne Group Headquarters 64	
Massage School 384	Ocean and Rail Transport Depart-
Medals, Honours and Awards 35	ment
Chaplain Services, Awards to 412	Officers—
1914 Star	Appointments and Promotions,
List of 455	29, 34 Casualties, Retraining of . 17
Medical Board Services, Reorgani-	Eychange between England and
sation of 386	France xv, 30 Gradation List 34 "Record of Service" 34 Repayment Clothing Store 84 Seconded 33 "Service in Erapce" Meaning of
	Gradation List 34
Medical Corps	"Record of Service" 34
Combined Return of Units 395	Repayment Clothing Store 84
Enemy Outrages on 387	Seconded 33
England Units in 393, 395	Service in France, meaning or,
Enemy Outrages on 387 England, Units in 393, 395 Establishment of the various	32
Orders of Units 393 France, Units in 394, 395	Supply of 28, 29, 30
France, Units in 394, 395	Training 14-17
Functions 259	Officers' Casualty Company xiv., 17
Helpers of 401	Officers' Club (Canadian) . 513
Functions 259 Helpers of	Ontario Hospital, Orpington, 398,
Organisation 201, 280 Record of 374	403
Record of	Operations Branch 209
Record of	Order of Battle (11 Nov., 1918), 331
Strength	Ordnance Corps—
Strength	Ashford Depot, Closing of 83
Medical Stores 385	Clothing, Part-worn 38

Ordnance Corps—cont.	Rations—Daily Cost 7
5th Divisional Equipment 82	Rawlinson, General—Thanks t
Functions	Canadian Cavalry Brigade, 34
Hospitals 82	Record Office—Duties—Function
Inspection Department . 81	—Record 43
Officers' Repayment Store 84	Red Cross — See "Canadian Red
Organisation 80, 203, 281 Surplus Stores, Disposal of, 82, 463	Cross Society."
Overseas Military Council . xii	Regimental Funds Branch . 43
	Reinforcement Camp 27
Overseas Purchasing Committee,	Reinforcements—
	Complete New Units Despatched
Palestine, Canadians in 23, 68	to France 6
Parcels, Custody of 456	to France 6 Distribution of Units at Date of
Parties and Personnel Loaned to	Armistice 5 Organisation 12
Imperial Authorities for Special	Organisation
Duty 19-23, 68 Pay Corps 205, 270, 284 Organisation and Functions,	Percentage Required to Replac
Pay Corps 205, 270, 284	Monthly Wastage 5 Statistics 6 Training of
organisation and Functions, 417-428	Training of
Pay Services 270, 284	
	Reorganisation of, and Increase in Existing Units in the Field, 63
Paymaster-General's Department—	103–104.
Organisation, Duties and Functions 418	
Perkins Bull Convalescent Home	Repatriation Statistics (to April 1
for Officers 400	1919)
	Reserve Battalions—Commands 3
0 1	Reserve Units—Reductions of 50
Postal Services 87, 205, 270	
Printing and Stationery 90	Rest Stations 202, 26
P.P.C.L.I., Histories of 457	Rhine, Advance to 189
Princess Patricia's Hospital . 400	Rhyl Camp 1
Prisoners of War—	Roads—
Canadian Red Cross Work 491	Control
Escaped and Repatriated, Recep-	Deputy Assistant Director of 216
tion of	Royal Air Force— Canadians in
Repatriation 468	Officers Seconded or Attached
Statistics 58, 468	to
Publicity 457	Royal Automobile Club—Member
Publicity 457 Purchases, Procedure as to . 441	ship Privileges Extended to
	Canadian Officers513-514
" Q " Branch (Corps) 213	Russian Northern—Canadians in
Organisation, Administration and	20–23, 68
Functions 315	Ct Dungton's Hostel for Dlinder
Quartermaster 228	St. Dunstan's Hostel for Blinder Soldiers and Sailors—Canadians
Quartermaster-General's Board of	at 51-
Officers 95	St. Francis Xavier Hospital 397, 403
Quartermaster-General's Branch, 69	St. John's Ambulance Association
Quartermaster-General's Inspection	402
Department 81, 85	
Queen's University Hospital, 396,	Salvage Officer
Poil	Salvage Corps
Railway Troops, Record of, 355-362,	Saskatchewan Hospital
Statistics 57 275	Saskatchewan Hospital 400 Seaford Camp 14
Statistics 57, 375	Seaford Camp 14

Second Division, 102, 108, 109, 110,	Trench Mortar Batteries—Organisa-
111, 112, 114, 116, 119, 120,	tion 198, 238
125, 126, 127, 130, 137, 138,	"Trench Mouth" 406
139, 141, 146, 148 150, 154,	Trench Warfare School 16
156, 157, 158, 159, 163, 164, 165, 166, 167, 168, 171, 172,	Troops as on Nov. 11, 1918 . 290
180, 181, 182, 185, 186, 187, 189, 190, 191, 192.	Troops Outside the Corps, Record of, 373
Segregation Camps . xiv., 10, 385	Trophies of War 96
	Typewriter Service 90, 92
"Service in France" (Officers)— Meaning of Term 32	Typhoid
Signal Officer	Units in the Field—Re-organisation of, and Increase in 63, 103, 104
Signal Service—	Universities, Hospitals Supported
Functions 267	by 403
Organisation 204	Valenciennes, Operations against
Signalling Training 12	(Oct., 1918) 176
Silver War Badge 36	(Oct., 1918) 176 Veterinary Services 89, 205, 268
Somme—Record of Cavalry Brigade	Evacuation Station
336	Organisation 282
Staff Appointments 28, 31	
Staff at Corps Headquarters, 286, 287, 288	Victoria Cross— Number Awarded, 35
Stationery, Printing and Typewriter Services 90	Vimy Ridge . 104-107, 117, 358
Stores, Surplus—Disposal of 82,	War Contingent Association (Cana-
463	dian) 508
Students—Return to Canada 32	War Diaries 454
Supplies	War Memorials Fund 460
Procedure as to Purchases. 441	War Records Office (Canadian) 453
Survey Section 63, 122, 273	War Trophies 96
Swedish Remedial Drill School 384	Wastage—Statistics 59
Tank Battalion, Record of . 377	Water Supply 323
Tanks, Use of	Western University Hospital 403
Third Division, 102, 108, 109, 110,	Witley Camp 14
111, 112, 113, 114, 116, 119,	Women, Employment of . 37-38
120, 125, 126, 129, 130, 138,	Works Officer 226
139, 140, 141, 146, 148, 150,	
139, 140, 141, 146, 148, 150, 152, 154, 156, 157, 160, 163, 164, 165, 166, 173, 177, 178,	Y.M.C.A. (Canadian) . 274, 402 Armistice, Work After . 500
164, 165, 166, 173, 177, 178,	Athletic Ground at Aubin St.
179, 180, 181, 182, 185, 186,	Vaast 501
187, 189.	Battle Zone, Work in 498
Tobacco, Cigars and Cigarettes Sales System 76	Battle Zone, Work in 498 Beaver Hut 502, 503
Toronto University Hospital, 396,	Belgium, Work in 501
403	Canteens 498
Town Majors 217	Canteens 498 Cavalry, Work with 500 Demobilisation Duties 505 England, Work in 501
Training Areas—Commands 30-31	England, Work in 501
Tramway Companies 63	Men, Help from 499
Transfers 48	Religious Side 504
Transport	Tourist Agency Work 508
Ocean and Rail Transport De-	Young Soldiers' Battalion . 24
partment 86	Ypres—Services of Railway Troops
Officer	358

Index.

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